



DAMSCHEN-ENTRANCO

Fergus Co
Sanitation Inc #291
grd wtr (ANALY)

ORIGINAL

RECEIVED

AUG 30 2000

MONTANA
DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

August 28, 2000

Pat Potts

Montana Department of Environmental Quality

P.O. Box 200901

Helena, MT 59620-0901

Dear Ms. Potts:

Enclosed please find the results of the Spring, 2000 ground-water analyses from samples collected at the Sanitation, Inc. landfill in Lewistown, Montana. Sampling was undertaken on June 27, 2000.

Ground-Water Flow

The wells recovered at anticipated rates, so it is assumed that there has been no change in the hydraulic conductivity of the saturated zone or in the condition of the well screens. The static water levels differed variably from the previous measurements, which is not unusual for the ground water at this facility. Static water levels in the installations toward the west fell compared to the previous measurements. Water levels in piezometer SIP-2 and monitoring well SIMW-1 were slightly higher.

The hydraulic gradient changes across the site, being steeper toward the west. The hydraulic gradient (I) near SIMW-1 and -2 can be measured from the enclosed map to be about 0.052. The gradient near SIMW-3 and SIP-1 is about 0.09. Using the previously-accepted estimated porosity (n_e) of 0.35, the seepage velocity (V_s) and discharge (Q) can be calculated for the area around each of the wells. The hydraulic conductivity (K) for the area around SIMW-1 and -2 was measured at 2.6×10^{-2} cm/sec (75 ft/day). Using

$$V_s = KI/n_e$$

the seepage velocity for the area around SIMW-1 can be calculated as 3.86×10^{-3} cm/day (9.2 ft/day). The hydraulic conductivity around SIMW-3 was measured at 3.2×10^{-3} cm/sec (9.2 ft/day), with a resulting seepage velocity of 8.2×10^{-4} cm/sec (2.33 ft/day).

PO BOX 4817

2030 11th AVENUE

SUITE 11

HELENA, MONTANA

59604

TELEPHONE

406 449 8627

FAX

406 449 8631

ARIZONA

CALIFORNIA

IDAHO

MONTANA

NEW MEXICO

OREGON

UTAH

WASHINGTON



Ground-Water Quality

Using the data from SIMW-1 for the background well, statistical exceedences occurred for the data obtained from monitoring wells SIMW-2 (chloride at 59 milligrams per liter [mg/l]; sulfate at 199 mg/l; and specific conductance at 1100 μ mhos per centimeter) and SIMW-3 (nitrate at 10.1 mg/l). None of these is regulated under Assessment Monitoring rules. Using an intra-well evaluation for all data reported, there were no statistical exceedences. There was an exceedence of the nitrate human health standard (10 milligrams per liter; mg/l) in the sample from monitoring well SIMW-3. The reported nitrate value was 10.1 mg/l.

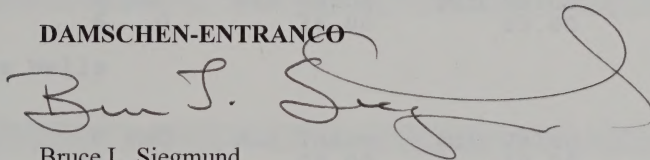
The volatile organic chemicals (VOCs) reported were below the practical quantitation limits. Dichlorodifluoromethane was detected in all three wells and 1,1,1-trichloroethane was found in the sample from well SIMW-2. None of these reported values resulted in statistical exceedences regardless of the method used.

The volatile organic compounds have reduced significantly since the initiation of sampling and inorganic constituents appear to be stable. We do not recommend any change in the sampling program currently in place.

If you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

DAMSCHE-ENTRANCO



Bruce L. Siegmund
Senior Hydrogeologist

cc: Al Gallagher, Sanitation, Inc.
Rick Thompson, Montana DEQ (letter only)

Kruskal-Wallis Test

Report Printed: 08-29-2000 10:25

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Chld dis Chloride, dissolved

CAS Number:16887-00-6

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-1	6	0	26.00	23.00	24.50	1.05

Compliance Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-2	11	0	63.00	30.00	53.36	9.17
SIMW-3	10	0	34.00	23.00	28.50	3.75

H Statistic: 19.4009
H Adjusted for Ties: 19.5501
Degrees of Freedom: 2
Chi-Squared: 5.9915
Z $\bar{A}$ /DF: 1.9600

* Indicates significant evidence of contamination

Well ID	Crit. Diff.	Rank Avg.	Background Rank Avg.	Difference
---------	-------------	-----------	----------------------	------------

*SIMW-2	7.8953	21.68	5.08	16.60
SIMW-3	8.0335	10.90	5.08	5.82

Kruskal-Wallis Test

Report Printed: 08-29-2000 10:26

Facility:D&A160

Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:SO4 dis Sulfate, dissolved

CAS Number:14808-79-8

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-1	6	0	95.00	76.00	83.33	8.12

Compliance Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-2	11	0	224.00	177.00	201.18	12.57
SIMW-3	10	0	140.00	121.00	131.00	5.96

Well ID	Date	Observation	Rank
SIMW-1	08/16/95	95.0000	6.0
SIMW-1	06/03/97	92.0000	5.0
SIMW-1	11/04/97	81.0000	4.0
SIMW-1	06/15/99	77.0000	2.0
SIMW-1	06/15/99	76.0000	1.0
SIMW-1	10/06/99	79.0000	3.0

aaaaaaaaaaaa

Background Rank Sum: 21.0

Background Rank Avg: 3.5

SIMW-2	08/16/95	224.0000	27.0
SIMW-2	06/10/96	195.0000	20.0
SIMW-2	10/22/96	214.0000	26.0
SIMW-2	06/03/97	202.0000	22.5
SIMW-2	11/04/97	211.0000	25.0
SIMW-2	06/16/98	201.0000	21.0
SIMW-2	06/16/98	202.0000	22.5
SIMW-2	10/06/98	203.0000	24.0
SIMW-2	10/06/98	191.0000	18.0

SIMW-2	06/15/99	17.00000	17.0
SIMW-2	10/06/99	19.00000	19.0
			aaaaaa
Compliance Well Rank Sum:			242.0
Compliance Well Rank Avg:			22.0
SIMW-3	08/16/95	140.0000	16.0
SIMW-3	06/10/96	139.0000	15.0
SIMW-3	10/22/96	133.0000	13.0
SIMW-3	06/03/97	134.0000	14.0
SIMW-3	11/04/97	131.0000	11.5
SIMW-3	11/04/97	131.0000	11.5
SIMW-3	06/16/98	129.0000	10.0
SIMW-3	10/06/98	128.0000	9.0
SIMW-3	06/15/99	121.0000	7.0
SIMW-3	10/06/99	124.0000	8.0
			aaaaaa
Compliance Well Rank Sum:			115.0
Compliance Well Rank Avg:			11.5

H Statistic:	22.6667
H Adjusted for Ties:	22.6805
Degrees of Freedom:	2
Chi-Squared:	5.9915
ZA/DF:	1.9600

* Indicates significant evidence of contamination

Well ID	Crit. Diff.	Rank Avg.	Background Rank Avg.	Difference
*SIMW-2	7.8953	22.00	3.50	18.50
SIMW-3	8.0335	11.50	3.50	8.00

Kruskal-Wallace Test
Report Printed: 08-29-2000 10:26

Facility:D&A160	Sanitation, Inc.
Address:P.O. Box 882	
City:Lewistown	ST:MT Zip:59457
County:FERGUS	
Contact:Bill Spoya	
Phone:() -	

Permit Type:Background

Constituent:Cond	Specific Conductivity
CAS Number:	- -
MCL:	0.000 umhos/cm
ACL:	0.000 umhos/cm
Detect Limit:	1.000 umhos/cm
Start Date:	Aug 16 1995
End Date:	Jan 01 2001

Data Mode:Original
Background Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-1	6	0	958.00	686.00	773.83	97.51

Compliance Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-2	11	0	1480.00	1040.00	1166.36	111.74
SIMW-3	10	0	893.00	683.00	748.70	57.54

Well ID	Date	Observation	Rank
SIMW-1	08/16/95	958.0000	16.0
SIMW-1	06/03/97	786.0000	14.0
SIMW-1	11/04/97	751.0000	10.0
SIMW-1	06/15/99	686.0000	2.0
SIMW-1	06/15/99	703.0000	3.0
SIMW-1	10/06/99	759.0000	11.0

áááááááááááá

Background Rank Sum: 56.0

Background Rank Avg: 9.3

SIMW-2	08/16/95	1480.0000	27.0
SIMW-2	06/10/96	1180.0000	25.5
SIMW-2	10/22/96	1180.0000	25.5
SIMW-2	06/03/97	1040.0000	17.0
SIMW-2	11/04/97	1110.0000	19.0
SIMW-2	06/16/98	1150.0000	22.5
SIMW-2	06/16/98	1150.0000	22.5
SIMW-2	10/06/98	1140.0000	21.0
SIMW-2	10/06/98	1130.0000	20.0
SIMW-2	06/15/99	1170.0000	24.0
SIMW-2	10/06/99	1100.0000	18.0

áááááááááááá

Compliance Well Rank Sum: 242.0

Compliance Well Rank Avg: 22.0

SIMW-3	08/16/95	893.0000	15.0
SIMW-3	06/10/96	750.0000	9.0
SIMW-3	10/22/96	706.0000	4.0
SIMW-3	06/03/97	683.0000	1.0
SIMW-3	11/04/97	767.0000	12.5
SIMW-3	11/04/97	767.0000	12.5
SIMW-3	06/16/98	739.0000	7.0
SIMW-3	10/06/98	731.0000	6.0
SIMW-3	06/15/99	707.0000	5.0
SIMW-3	10/06/99	744.0000	8.0

áááááááááááá

Compliance Well Rank Sum: 80.0

Compliance Well Rank Avg: 8.0

H Statistic: 18.9630

H Adjusted for Ties: 18.9803

Degrees of Freedom: 2

Chi-Squared: 5.9915

ZA/DF: 1.9600

* Indicates significant evidence of contamination

Well ID	Crit.	Diff.	Rank Avg.	Background Rank Avg.	Difference
*SIMW-2	7.8953		22.00	9.33	12.67
SIMW-3	8.0335		8.00	9.33	-1.33

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:NO3/NO2 Nitrate,Nitrite

CAS Number: - -
MCL: 0.000 mg/l
ACL: 0.000 mg/l
Detect Limit: 0.000 mg/l

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-1	8	0	5.56	3.74	4.46	0.70

Compliance Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-2	11	0	4.18	2.11	3.08	0.77
SIMW-3	10	0	12.20	8.96	10.15	1.29

Well ID	Date	Observation	Rank
SIMW-1	08/16/95	4.4900	17.0
SIMW-1	06/10/96	4.2400	16.0
SIMW-1	06/03/97	5.5600	19.0
SIMW-1	11/04/97	3.7400	8.0
SIMW-1	10/06/98	5.5200	18.0
SIMW-1	06/15/99	4.0400	12.5
SIMW-1	06/15/99	4.0400	12.5
SIMW-1	10/06/99	4.0600	14.0

aaaaaaaaaaaa

Background Rank Sum: 117.0
Background Rank Avg: 14.6

SIMW-2	08/16/95	3.7800	9.0
SIMW-2	06/10/96	4.1800	15.0
SIMW-2	10/22/96	2.6000	5.0
SIMW-2	06/03/97	2.1100	1.0
SIMW-2	11/04/97	3.9500	10.0
SIMW-2	06/16/98	2.3200	2.0
SIMW-2	06/16/98	2.3700	3.0
SIMW-2	10/06/98	3.9700	11.0
SIMW-2	10/06/98	2.8300	6.0

SIMW-2 06/15/99 2600 7.0
SIMW-2 10/06/99 4600 4.0

Compliance Well Rank Sum: 73.0
Compliance Well Rank Avg: 6.6
SIMW-3 08/16/95 8.9600 20.0
SIMW-3 06/10/96 9.2500 24.0
SIMW-3 10/22/96 9.0900 22.0
SIMW-3 06/03/97 9.0800 21.0
SIMW-3 11/04/97 9.5300 25.0
SIMW-3 11/04/97 9.2000 23.0
SIMW-3 06/16/98 12.2000 29.0
SIMW-3 10/06/98 11.0000 26.0
SIMW-3 06/15/99 11.7000 28.0
SIMW-3 10/06/99 11.5000 27.0

Compliance Well Rank Sum: 245.0
Compliance Well Rank Avg: 24.5

H Statistic: 23.0770
H Adjusted for Ties: 23.0827
Degrees of Freedom: 2
Chi-Squared: 5.9915
Z²/DF: 1.9600

* Indicates significant evidence of contamination

Well ID	Crit.	Diff.	Rank Avg.	Background Rank Avg.	Difference
SIMW-2		7.7277	6.64	14.63	-7.99
*SIMW-3		7.8887	24.50	14.63	9.88

Facility:D&A160 Sanitation, Inc.
Address:P.O. Box 882
City:Lewistown ST:MT Zip:59457
County:FERGUS
Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:DC1DF1Me Dichlorodifluoromethane

CAS Number: 75-71-8
MCL: 0.000 ug/l
ACL: 0.000 ug/l
Detect Limit: 1.000 ug/l

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-1	8	0	0.68	0.51	0.57	0.06

Compliance Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-2	12	50	0.51	0.18	0.40	0.13
SIMW-3	11	64	1.20	0.20	0.54	0.24

Well ID	Date	Observation	Rank
SIMW-1	08/16/95	0.6500	29.0
SIMW-1	06/10/96	0.5800	28.0
SIMW-1	06/03/97	0.5300	23.5
SIMW-1	11/04/97	0.6800	30.0
SIMW-1	10/06/98	0.5400	25.5
SIMW-1	06/15/99	0.5300	23.5
SIMW-1	06/15/99	0.5100	21.5
SIMW-1	10/06/99	0.5400	25.5
aaaaaaaaaaaa			
Background Rank		Sum:	206.5
Background Rank		Avg:	25.8
SIMW-2	08/16/95	0.5000	7.0
SIMW-2	06/10/96	0.1800	14.0
SIMW-2	10/22/96	0.2300	16.0
SIMW-2	06/03/97	0.5000	7.0
SIMW-2	06/03/97	0.5000	7.0
SIMW-2	11/04/97	0.2600	17.0
SIMW-2	06/16/98	0.5000	7.0

SIMW-2	06/16/98	0.5000	7.0
SIMW-2	10/06/98	0.2800	18.5
SIMW-2	10/06/98	0.2800	18.5
SIMW-2	06/15/99	0.5100	21.5
SIMW-2	10/06/99	0.5000	7.0

aaaaaaaaaaaa

Compliance Well Rank Sum: 147.5

Compliance Well Rank Avg: 12.3

SIMW-3	08/16/95	0.2000	15.0
SIMW-3	06/10/96	0.5000	7.0
SIMW-3	10/22/96	0.5000	7.0
SIMW-3	06/03/97	0.5000	7.0
SIMW-3	11/04/97	0.5000	7.0
SIMW-3	11/04/97	0.5000	7.0
SIMW-3	06/16/98	1.2000	31.0
SIMW-3	10/06/98	0.4500	20.0
SIMW-3	06/15/99	0.5500	27.0
SIMW-3	10/06/99	0.5000	7.0
SIMW-3	10/06/99	0.5000	7.0

aaaaaaaaaaaa

Compliance Well Rank Sum: 142.0

Compliance Well Rank Avg: 12.9

H Statistic:	12.5854
H Adjusted for Ties:	13.5940
Degrees of Freedom:	2
Chi-Squared:	5.9915
Z ² /DF:	1.9600

* Indicates significant evidence of contamination

Well ID	Crit. Diff.	Rank Avg.	Background Rank Avg.	Difference
SIMW-2	8.1009	12.29	25.81	-13.52
SIMW-3	8.2469	12.91	25.81	-12.90

Facility:D&A160 Sanitation, Inc.
Address:P.O. Box 882
City:Lewistown ST:MT Zip:59457
County:FERGUS
Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:1,1,1Tri 1,1,1-Trichloroethane

CAS Number: 71-55-6
MCL: 0.000 ug/l
ACL: 0.000 ug/l
Detect Limit: 1.000 ug/l

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-1	8	13	0.77	0.34	0.49	0.15

Compliance Wells

Well ID	N	%ND	Max Value	Min Value	Mean	Std Dev
SIMW-2	12	58	1.20	0.18	0.50	0.24
SIMW-3	11	82	0.54	0.34	0.49	0.05

Well ID	Date	Observation	Rank
SIMW-1	08/16/95	0.6700	29.0
SIMW-1	06/10/96	0.3400	19.5
SIMW-1	06/03/97	0.7700	30.0
SIMW-1	11/04/97	0.4000	23.0
SIMW-1	10/06/98	0.4200	25.0
SIMW-1	06/15/99	0.4300	27.0
SIMW-1	06/15/99	0.4200	25.0
SIMW-1	10/06/99	0.5000	9.0
aaaaaaaaaaaa			
Background Rank Sum:		187.5	
Background Rank Avg:		23.4	
SIMW-2	08/16/95	0.5000	9.0
SIMW-2	06/10/96	0.1800	18.0
SIMW-2	10/22/96	0.5000	9.0
SIMW-2	06/03/97	0.5000	9.0
SIMW-2	06/03/97	0.5000	9.0
SIMW-2	11/04/97	0.4200	25.0
SIMW-2	06/16/98	0.5000	9.0

SIMW-2	06/16/98	5000	9.0
SIMW-2	10/06/98	3900	22.0
SIMW-2	10/06/98	0.3600	21.0
SIMW-2	06/15/99	1.2000	31.0
SIMW-2	10/06/99	0.5000	9.0

áááááááááááá

Compliance Well Rank Sum:		180.0
Compliance Well Rank Avg:		15.0
SIMW-3	08/16/95	0.5400 28.0
SIMW-3	06/10/96	0.5000 9.0
SIMW-3	10/22/96	0.5000 9.0
SIMW-3	06/03/97	0.5000 9.0
SIMW-3	11/04/97	0.5000 9.0
SIMW-3	11/04/97	0.5000 9.0
SIMW-3	06/16/98	0.5000 9.0
SIMW-3	10/06/98	0.5000 9.0
SIMW-3	06/15/99	0.3400 19.5
SIMW-3	10/06/99	0.5000 9.0
SIMW-3	10/06/99	0.5000 9.0

áááááááááááá

Compliance Well Rank Sum:		128.5
Compliance Well Rank Avg:		11.7

H Statistic:		7.9796
H Adjusted for Ties:		9.5624
Degrees of Freedom:		2
Chi-Squared:		5.9915
ZÁ/DF:		1.9600

* Indicates significant evidence of contamination

Well ID	Crit.	Diff.	Rank Avg.	Background Rank Avg.	Difference
SIMW-2	8.1009	15.00	23.44	-8.44	
SIMW-3	8.2469	11.68	23.44	-11.76	

Prediction Intervals

Report Printed: 08-28-2000 16:53

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Chld dis Chloride, dissolved

CAS Number:16887-00-6

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-2	08/16/95	55000.0000
SIMW-2	06/10/96	47000.0000
SIMW-2	10/22/96	62000.0000
SIMW-2	06/03/97	63000.0000
SIMW-2	11/04/97	58000.0000
SIMW-2	06/16/98	56000.0000
SIMW-2	06/16/98	59000.0000
SIMW-2	10/06/98	56000.0000
SIMW-2	10/06/98	51000.0000
SIMW-2	06/15/99	30000.0000
SIMW-2	10/06/99	50000.0000

Summary Statistics

Observations: 11
Mean: 53363.637
Std Dev: 9168.126
Shapiro-Wilk: 0.743

1% Critical Value: 0.792
5% Critical Value: 0.850

Future Data

Well:SIMW-2

Date	Observation
06/27/00	59000.0000

Summary Statistics

Observations: 1
Mean: 53363.637
Std Dev: 9168.126

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	59000.000	[0.0- 70719.391]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:53

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Chld dis Chloride, dissolved

CAS Number:16887-00-6

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-3	08/16/95	34000.0000

SIMW-3	06/10/97	30000.0000
SIMW-3	10/22/97	34000.0000
SIMW-3	06/03/97	27000.0000
SIMW-3	11/04/97	30000.0000
SIMW-3	11/04/97	30000.0000
SIMW-3	06/16/98	23000.0000
SIMW-3	10/06/98	25000.0000
SIMW-3	06/15/99	25000.0000
SIMW-3	10/06/99	27000.0000

Summary Statistics

Observations:	10
Mean:	28500.002
Std Dev:	3749.074
Shapiro-Wilk:	0.935

1% Critical Value: 0.781
5% Critical Value: 0.842

Future Data

Well:SIMW-3

Date	Observation
------	-------------

06/27/00	30000.0000
----------	------------

Summary Statistics

Observations: 1
Mean: 28500.002
Std Dev: 3749.074

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	30000.000	[0.0- 35707.918]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:54

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Chld dis Chloride, dissolved

CAS Number:16887-00-6

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
---------	------	-------------

SIMW-1	08/16/95	26000.0000
--------	----------	------------

SIMW-1	06/03/99	25000.0000
SIMW-1	11/04/99	24000.0000
SIMW-1	06/15/99	23000.0000
SIMW-1	06/15/99	24000.0000
SIMW-1	10/06/99	25000.0000

Summary Statistics

Observations:	6
Mean:	24500.000
Std Dev:	1048.809
Shapiro-Wilk:	0.992

1% Critical Value: 0.713
5% Critical Value: 0.788

Future Data

Well: SIMW-1

Date	Observation
06/27/00	22000.0000
06/27/00	23000.0000

Summary Statistics

Observations: 2
Mean: 24500.000
Std Dev: 1048.809

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	2	22500.000	[0.0- 26225.584]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:55

Facility:D&A160

Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:SO4 dis Sulfate, dissolved

CAS Number:14808-79-8

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-2	08/16/95	224000.0000
SIMW-2	06/10/96	195000.0000
SIMW-2	10/22/96	214000.0000
SIMW-2	06/03/97	202000.0000
SIMW-2	11/04/97	211000.0000
SIMW-2	06/16/98	201000.0000
SIMW-2	06/16/98	202000.0000
SIMW-2	10/06/98	203000.0000
SIMW-2	10/06/98	191000.0000
SIMW-2	06/15/99	177000.0000
SIMW-2	10/06/99	193000.0000

Summary Statistics

Observations: 11
Mean: 201181.813
Std Dev: 12568.359
Shapiro-Wilk: 0.856

1% Critical Value: 0.792
5% Critical Value: 0.850

Future Data

Well:SIMW-2

Date	Observation
------	-------------

06/27/00	199000.0000
----------	-------------

Summary Statistics

Observations: 1
Mean: 201181.813
Std Dev: 12568.359

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	199000.000	[0.0- 224974.391]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:55

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:SO4 dis Sulfate, dissolved

CAS Number:14808-79-8

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
---------	------	-------------

SIMW-3	08/16/95	140000.0000
--------	----------	-------------

SIMW-3	06/10/97	139000.0000
SIMW-3	10/22/97	133000.0000
SIMW-3	06/03/97	134000.0000
SIMW-3	11/04/97	131000.0000
SIMW-3	11/04/97	131000.0000
SIMW-3	06/16/98	129000.0000
SIMW-3	10/06/98	128000.0000
SIMW-3	06/15/99	121000.0000
SIMW-3	10/06/99	124000.0000

Summary Statistics

Observations:	10
Mean:	131000.000
Std Dev:	5962.849
Shapiro-Wilk:	0.975

1% Critical Value: 0.781
5% Critical Value: 0.842

Future Data

Well: SIMW-3

Date	Observation
------	-------------

06/27/00	135000.0000
----------	-------------

Summary Statistics

Observations: 1
Mean: 131000.000
Std Dev: 5962.849

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	135000.000	[0.0- 142464.078]

* Since the Mean for this period exceeds the upper prediction limit, there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:56

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Cond Specific Conductivity

CAS Number: - -

MCL: 0.000 umhos/cm

ACL: 0.000 umhos/cm

Detect Limit: 1.000 umhos/cm

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-2	08/16/95	1480.0000
SIMW-2	06/10/96	1180.0000
SIMW-2	10/22/96	1180.0000
SIMW-2	06/03/97	1040.0000
SIMW-2	11/04/97	1110.0000
SIMW-2	06/16/98	1150.0000
SIMW-2	06/16/98	1150.0000
SIMW-2	10/06/98	1140.0000
SIMW-2	10/06/98	1130.0000
SIMW-2	06/15/99	1170.0000
SIMW-2	10/06/99	1100.0000

Summary Statistics

Observations: 11
Mean: 1166.364
Std Dev: 111.738
Shapiro-Wilk: 0.648

1% Critical Value: 0.792
5% Critical Value: 0.850

Future Data

Well:SIMW-2

Date	Observation
06/27/00	1100.0000

Summary Statistics

Observations: 1
Mean: 1166.364
Std Dev: 111.738

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	1100.000	[0.0- 1377.890]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:56

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Cond	Specific Conductivity
------------------	-----------------------

CAS Number:	-
MCL:	0.000 umhos/cm
ACL:	0.000 umhos/cm
Detect Limit:	1.000 umhos/cm

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-3	08/16/95	893.0000

SIMW-3	06/10/9	750.0000
SIMW-3	10/22/9	706.0000
SIMW-3	06/03/97	683.0000
SIMW-3	11/04/97	767.0000
SIMW-3	11/04/97	767.0000
SIMW-3	06/16/98	739.0000
SIMW-3	10/06/98	731.0000
SIMW-3	06/15/99	707.0000
SIMW-3	10/06/99	744.0000

Summary Statistics

Observations:	10
Mean:	748.700
Std Dev:	57.544
Shapiro-Wilk:	0.814

1% Critical Value: 0.781
5% Critical Value: 0.842

Future Data

Well:SIMW-3

Date	Observation
06/27/00	797.0000

Summary Statistics

Observations: 1
Mean: 748.700
Std Dev: 57.544

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	797.000 [0.0-	859.334]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:56

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Cond	Specific Conductivity
------------------	-----------------------

CAS Number:	- -
MCL:	0.000 umhos/cm
ACL:	0.000 umhos/cm
Detect Limit:	1.000 umhos/cm

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-1	08/16/95	958.0000

SIMW-1	06/03/97	786.0000
SIMW-1	11/04/98	751.0000
SIMW-1	06/15/99	686.0000
SIMW-1	06/15/99	703.0000
SIMW-1	10/06/99	759.0000

Summary Statistics

Observations:	6
Mean:	773.833
Std Dev:	97.508
Shapiro-Wilk:	0.860

1% Critical Value: 0.713
5% Critical Value: 0.788

Future Data

Well: SIMW-1

Date	Observation
06/27/00	755.0000
06/27/00	749.0000

Summary Statistics

Observations: 2
Mean: 773.833
Std Dev: 97.508

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	2	752.000	[0.0- 934.261]

* Since the Mean for this period exceeds the upper prediction limit, there is significant evidence of contamination.

Prediction Intervals
Report Printed: 08-28-2000 16:57

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:NO3/NO2 Nitrate,Nitrite

CAS Number: - -
MCL: 0.000 mg/l
ACL: 0.000 mg/l
Detect Limit: 0.000 mg/l

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-2	08/16/95	3780.0000
SIMW-2	06/10/96	4180.0000
SIMW-2	10/22/96	2600.0000
SIMW-2	06/03/97	2110.0000
SIMW-2	11/04/97	3950.0000
SIMW-2	06/16/98	2320.0000
SIMW-2	06/16/98	2370.0000
SIMW-2	10/06/98	3970.0000
SIMW-2	10/06/98	2830.0000
SIMW-2	06/15/99	3260.0000
SIMW-2	10/06/99	2460.0000

Summary Statistics

Observations: 11
Mean: 3075.455
Std Dev: 773.374
Shapiro-Wilk: 0.717

1% Critical Value: 0.792
5% Critical Value: 0.850

Future Data

Well:SIMW-2

Date	Observation
------	-------------

06/27/00	2570.0000
----------	-----------

Summary Statistics

Observations: 1
Mean: 3075.455
Std Dev: 773.374

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	2570.000	[0.0- 4539.494]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:57

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:NO3/NO2 Nitrate,Nitrite

CAS Number: - -

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.000 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
---------	------	-------------

SIMW-3	08/16/95	8960.0000
--------	----------	-----------

SIMW-3	06/10/97	9250.0000
SIMW-3	10/22/97	9090.0000
SIMW-3	06/03/97	9080.0000
SIMW-3	11/04/97	9530.0000
SIMW-3	11/04/97	9200.0000
SIMW-3	06/16/98	12200.0000
SIMW-3	10/06/98	11000.0000
SIMW-3	06/15/99	11700.0000
SIMW-3	10/06/99	11500.0000

Summary Statistics

Observations:	10
Mean:	10151.000
Std Dev:	1288.043
Shapiro-Wilk:	0.815

1% Critical Value: 0.781
5% Critical Value: 0.842

Future Data

Well:SIMW-3

Date	Observation
06/27/00	10100.0000

Summary Statistics

Observations: 1
Mean: 10151.000
Std Dev: 1288.043

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	10100.000	[0.0- 12627.372]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:57

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:NO3/NO2 Nitrate,Nitrite

CAS Number: - -
MCL: 0.000 mg/l
ACL: 0.000 mg/l
Detect Limit: 0.000 mg/l

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-1	08/16/95	4490.0000

SIMW-1	06/10/97	4240.0000
SIMW-1	06/03/97	5560.0000
SIMW-1	11/04/97	3740.0000
SIMW-1	10/06/98	5520.0000
SIMW-1	06/15/99	4040.0000
SIMW-1	06/15/99	4040.0000
SIMW-1	10/06/99	4060.0000

Summary Statistics

Observations:	8
Mean:	4461.250
Std Dev:	698.374
Shapiro-Wilk:	0.817

0-12/00-04/00/00

11/00-00/00

11/00-00/00

* Since the Mean for this period exceeds the upper prediction limit, there is significant evidence of positive trend.

1% Critical Value: 0.749
5% Critical Value: 0.818

Future Data

Well: SIMW-1

Date	Observation
06/27/00	3600.0000
06/27/00	3260.0000

Summary Statistics

Observations: 2
Mean: 4461.250
Std Dev: 698.374

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	2	3430.000	[0.0- 5507.273]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:57

Facility:D&A160

Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Se dis Selenium, dissolved

CAS Number: 7782-49-2

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-2	08/16/95	6.0000
SIMW-2	06/10/96	8.0000
SIMW-2	10/22/96	0.5000
SIMW-2	06/03/97	14.0000
SIMW-2	11/04/97	8.0000
SIMW-2	06/16/98	5.0000
SIMW-2	10/06/98	6.0000
SIMW-2	10/06/98	5.0000
SIMW-2	06/15/99	6.0000
SIMW-2	10/06/99	0.5000

Summary Statistics

Observations: 10

Mean: 5.900

Std Dev: 3.864

Shapiro-Wilk: 0.898

1% Critical Value: 0.781
5% Critical Value: 0.842

Future Data

Well:SIMW-2

Date	Observation
06/27/00	5.0000

Summary Statistics

Observations: 1
Mean: 5.900
Std Dev: 3.864

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	5.000	[0.0- 13.330]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:58

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Se dis Selenium, dissolved

CAS Number: 7782-49-2

MCL: 0.000 mg/l

ACL: 0.000 mg/l

Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-3	08/16/95	21.0000

SIMW-3	06/10/97	22.0000
SIMW-3	10/22/97	19.0000
SIMW-3	06/03/97	0.5000
SIMW-3	11/04/97	23.0000
SIMW-3	11/04/97	23.0000
SIMW-3	06/16/98	19.0000
SIMW-3	10/06/98	17.0000
SIMW-3	06/15/99	74.0000
SIMW-3	10/06/99	19.0000

Summary Statistics

Observations:	10
Mean:	23.750
Std Dev:	18.829
Shapiro-Wilk:	0.640

1% Critical Value 0.781
5% Critical Value: 0.842

Future Data

Well:SIMW-3

Date	Observation
06/27/00	23.0000

Summary Statistics

Observations: 1
Mean: 23.750
Std Dev: 18.829

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	23.000	[0.0- 59.949]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:58

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:Se dis Selenium, dissolved

CAS Number: 7782-49-2

MCL: 0.000 mg/l
ACL: 0.000 mg/l
Detect Limit: 0.001 mg/l

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-1	08/16/95	17.0000

SIMW-1	06/10/96	16.0000
SIMW-1	06/03/97	14.0000
SIMW-1	11/04/97	19.0000
SIMW-1	06/15/99	18.0000
SIMW-1	06/15/99	18.0000
SIMW-1	10/06/99	17.0000

Summary Statistics

Observations:	7.
Mean:	17.000
Std Dev:	1.633
Shapiro-Wilk:	0.830

1% Critical Value 0.730
5% Critical Value: 0.803

Future Data

Well: SIMW-1

Date	Observation
06/27/00	16.0000
06/27/00	17.0000

Summary Statistics

Observations: 2
Mean: 17.000
Std Dev: 1.633

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	2	16.500 [0.0-	19.544]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:58

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown

ST:MT Zip:59457

County:FERGUS

Contact:Bill Spoya

Phone:() -

Permit Type:Background

Constituent:DC1DF1Me Dichlorodifluoromethane

CAS Number: 75-71-8

MCL: 0.000 ug/l

ACL: 0.000 ug/l

Detect Limit: 1.000 ug/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-2	08/16/95	0.5000
SIMW-2	06/10/96	0.1800
SIMW-2	10/22/96	0.2300
SIMW-2	06/03/97	0.5000
SIMW-2	06/03/97	0.5000
SIMW-2	11/04/97	0.2600
SIMW-2	06/16/98	0.5000
SIMW-2	06/16/98	0.5000
SIMW-2	10/06/98	0.2800
SIMW-2	10/06/98	0.2800
SIMW-2	06/15/99	0.5100
SIMW-2	10/06/99	0.5000

Summary Statistics

Observations:	12
Mean:	0.395
Std Dev:	0.134
Shapiro-Wilk:	0.746

1% Critical Value^s 0.805
5% Critical Value: 0.859

Future Data

Well:SIMW-2

Date	Observation
06/27/00	0.3200

Summary Statistics

Observations: 1
Mean: 0.395
Std Dev: 0.134

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	0.320 [0.0-	0.645]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:59

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown ST:MT Zip:59457
County:FERGUS

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:DCldFlMe Dichlorodifluoromethane

CAS Number: 75-71-8
MCL: 0.000 ug/l
ACL: 0.000 ug/l
Detect Limit: 1.000 ug/l

Start Date:Aug 16 1995
End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-3	08/16/95	0.2000

SIMW-3	06/10/97	0.5000
SIMW-3	10/22/99	0.5000
SIMW-3	06/03/97	0.5000
SIMW-3	11/04/97	0.5000
SIMW-3	11/04/97	0.5000
SIMW-3	06/16/98	1.2000
SIMW-3	10/06/98	0.4500
SIMW-3	06/15/99	0.5500
SIMW-3	10/06/99	0.5000
SIMW-3	10/06/99	0.5000

Summary Statistics

Observations: 11
Mean: 0.536
Std Dev: 0.239
Shapiro-Wilk: 0.597

1% Critical Value: 0.792
5% Critical Value: 0.850

Future Data

Well: SIMW-3

Date	Observation
06/27/00	0.3200

Summary Statistics

Observations: 1
Mean: 0.536
Std Dev: 0.239

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	0.320 [0.0-	0.989]

* Since the Mean for this period exceeds the upper prediction limit, there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:59

Facility: D&A160 Sanitation, Inc.

Address: P.O. Box 882

City: Lewistown
County: FERGUS

ST: MT Zip: 59457

Contact: Bill Spoya
Phone: () -

Permit Type: Background

Constituent: DC1DF1Me Dichlorodifluoromethane

CAS Number: 75-71-8

MCL: 0.000 ug/l

ACL: 0.000 ug/l

Detect Limit: 1.000 ug/l

Start Date: Aug 16 1995

End Date: Jan 01 2001

Data Mode: Original

Background Data

Well ID	Date	Observation
SIMW-1	08/16/95	0.6500

SIMW-1	06/10/9	0.5800
SIMW-1	06/03/9	0.5300
SIMW-1	11/04/9	0.6800
SIMW-1	10/06/98	0.5400
SIMW-1	06/15/99	0.5300
SIMW-1	06/15/99	0.5100
SIMW-1	10/06/99	0.5400

Summary Statistics

Observations:	8
Mean:	0.570
Std Dev:	0.062
Shapiro-Wilk:	0.833

1% Critical Value 0.749
5% Critical Value: 0.818

Future Data

Well: SIMW-1

Date	Observation
06/27/00	0.5900
06/27/00	0.6300

Summary Statistics

Observations: 2
Mean: 0.570
Std Dev: 0.062

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	2	0.610	[0.0- 0.663]

* Since the Mean for this period exceeds the upper prediction limit, there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:59

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone:() -

Permit Type:Background

Constituent:1,1,1Tri 1,1,1-Trichloroethane

CAS Number: 71-55-6

MCL: 0.000 ug/l

ACL: 0.000 ug/l

Detect Limit: 1.000 ug/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
SIMW-2	08/16/95	0.5000
SIMW-2	06/10/96	0.1800
SIMW-2	10/22/96	0.5000
SIMW-2	06/03/97	0.5000
SIMW-2	06/03/97	0.5000
SIMW-2	11/04/97	0.4200
SIMW-2	06/16/98	0.5000
SIMW-2	06/16/98	0.5000
SIMW-2	10/06/98	0.3900
SIMW-2	10/06/98	0.3600
SIMW-2	06/15/99	1.2000
SIMW-2	10/06/99	0.5000

Summary Statistics

Observations: 12
Mean: 0.504
Std Dev: 0.239
Shapiro-Wilk: 0.650

1% Critical Value: 0.805
5% Critical Value: 0.859

Future Data

Well: SIMW-2

Date	Observation
06/27/00	0.4200

Summary Statistics

Observations: 1
Mean: 0.504
Std Dev: 0.239

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	0.420	[0.0- 0.952]

* Since the Mean for this period exceeds the upper prediction limit, there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 16:59

Facility: D&A160 Sanitation, Inc.

Address: P.O. Box 882

City: Lewistown ST: MT Zip: 59457
County: FERGUS

Contact: Bill Spoya
Phone: () -

Permit Type: Background

Constituent: 1,1,1Tri 1,1,1-Trichloroethane

CAS Number: 71-55-6

MCL: 0.000 ug/l

ACL: 0.000 ug/l

Detect Limit: 1.000 ug/l

Start Date: Aug 16 1995

End Date: Jan 01 2001

Data Mode: Original

Background Data

Well ID	Date	Observation
SIMW-3	08/16/95	0.5400

SIMW-3	06/10/97	0.5000
SIMW-3	10/22/97	0.5000
SIMW-3	06/03/97	0.5000
SIMW-3	11/04/97	0.5000
SIMW-3	11/04/97	0.5000
SIMW-3	06/16/98	0.5000
SIMW-3	10/06/98	0.5000
SIMW-3	06/15/99	0.3400
SIMW-3	10/06/99	0.5000
SIMW-3	10/06/99	0.5000

Summary Statistics

Observations:	11
Mean:	0.489
Std Dev:	0.051
Shapiro-Wilk:	0.477

Significance Level: 0.05000

Since the p-value for this period exceeds the upper confidence limit, there is insufficient evidence to reject the null hypothesis.

Report of Results: 10/15/99

City: Louisville, KY

County: Jefferson

City: Louisville, KY

County: Jefferson

Contact: Bill Brown

Phone: (502) 581-1111

Project: Type: Background

Start Date: Aug 15, 1995
End Date: Dec 31, 1995

Start Date: Aug 15, 1995
End Date: Dec 31, 1995

Project: Type: Background

Project: Type: Background

Project: Type: Background

Project: Type: Background

1% Critical Value 0.792
5% Critical Value: 0.850

Future Data

Well:SIMW-3

Date	Observation
------	-------------

06/27/00	0.5000
----------	--------

Summary Statistics

Observations: 1
Mean: 0.489
Std Dev: 0.051

Prediction Intervals

Significance Level:0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	1	0.500	[0.0- 0.585]

* Since the Mean for this period exceeds the upper prediction limit,
there is significant evidence of contamination.

Prediction Intervals

Report Printed: 08-28-2000 17:00

Facility:D&A160 Sanitation, Inc.

Address:P.O. Box 882

City:Lewistown
County:FERGUS

ST:MT Zip:59457

Contact:Bill Spoya
Phone: () -

Permit Type:Background

Constituent:1,1,1Tri 1,1,1-Trichloroethane

CAS Number: 71-55-6

MCL: 0.000 ug/l

ACL: 0.000 ug/l

Detect Limit: 1.000 ug/l

Start Date:Aug 16 1995

End Date:Jan 01 2001

Data Mode:Original

Background Data

Well ID	Date	Observation
---------	------	-------------

SIMW-1	08/16/95	0.6700
--------	----------	--------

SIMW-1	06/10/97	0.3400
SIMW-1	06/03/98	0.7700
SIMW-1	11/04/97	0.4000
SIMW-1	10/06/98	0.4200
SIMW-1	06/15/99	0.4300
SIMW-1	06/15/99	0.4200
SIMW-1	10/06/99	0.5000

Summary Statistics

Observations:	8
Mean:	0.494
Std Dev:	0.149
Shapiro-Wilk:	0.847

1% Critical Value: 0.749
 5% Critical Value: 0.818

Future Data

Well: SIMW-1

Date	Observation
06/27/00	0.5000
06/27/00	0.5000

Summary Statistics

Observations: 2
 Mean: 0.494
 Std Dev: 0.149

Prediction Intervals

Significance Level: 0.050000

Date Range	Observations	Mean	Interval
06/27/00-06/30/00	2	0.500 [0.0-	0.716]

* Since the Mean for this period exceeds the upper prediction limit, there is significant evidence of contamination.

**ENERGY LABORATORIES, INC.**P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.com**LABORATORY ANALYSIS REPORT****Spoysa, B.****PO Box 692****Lewistown, MT 59457****Project ID:****SANITATION, INC LANDFILL, LEW.****Sample ID:****SIMW-1****Laboratory ID:****00-55393-1****Sample Matrix:****Water****Sample Date:****27-Jun-00 1030****Received at lab:****29-Jun-00****Reported: 17-Jul-00**

	Reporting		Regulatory		Analyzed			
	Results	Units	Qual	Limit			Limit	Method
Chloride	22	mg/l		1		EPA 300.0	01-Jul-00 0816	RLH
Sulfate	70	mg/l		1		EPA 300.0	01-Jul-00 0816	RLH
Specific Conductance @ 25 C	755	umhos/cm		1		SM 2510B	29-Jun-00 2037	QED
pH	6.4	s.u.		0.1		EPA 150.1	29-Jun-00 2037	QED
Chemical Oxygen Demand	4	mg/l		1		EPA 410.4	06-Jul-00 1243	BS
Nitrogen, Nitrate plus Nitrite	3.60	mg/l		0.05		EPA 353.2	03-Jul-00 1842	BAS
Total Cyanide	<0.005	mg/l	U	0.005		EPA 335.4	30-Jun-00 1726	ND
Dissolved Antimony	<0.05	mg/l	J	0.05		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Arsenic	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-00 2107	LAB
Dissolved Barium	<0.1	mg/l	U	0.1		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Beryllium	<0.001	mg/l	U	0.001		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Cadmium	<0.001	mg/l	J	0.001		EPA 200.8	13-Jul-00 2107	LAB
Dissolved Chromium	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Cobalt	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Copper	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Iron	<0.03	mg/l	U	0.03		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Lead	<0.01	mg/l	U	0.01		EPA 200.8	13-Jul-00 2107	LAB
Dissolved Mercury	<0.001	mg/l	U	0.001		EPA 200.8	13-Jul-00 2107	LAB
Dissolved Nickel	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Selenium	0.016	mg/l		0.005		EPA 200.8	13-Jul-00 2107	LAB
Dissolved Silver	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-00 2107	LAB
Dissolved Thallium	<0.1	mg/l	U	0.1		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Vanadium	<0.1	mg/l	U	0.1		EPA 200.7	05-Jul-00 2049	MKE
Dissolved Zinc	0.01	mg/l		0.01		EPA 200.7	05-Jul-00 2049	MKE

U=Indicates parameter was analyzed for but not detected.

J=Present, but less than the detection limit.



ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.com

Client: Spoya, B.
Date Sampled: 27-JUN-2000 10:30
Date Received: 29-JUN-2000 00:00
Analysis Date: 10-JUL-2000 23:51
Project Info: SANITATION, INC LANDFILL, LEW.
Sample Info: SIMW-1

Lab No.: 001-00-55393
Report Date: 07/21/2000 11:47
Extraction Method: EPA 5030
Sample Matrix: WATER; pH= < 2

EPA METHOD 8260B: VOLATILE ORGANICS ANALYSIS REPORT

COMPOUNDS	CONCENTRATION UNITS = ug/L (ppb)		QUALIFIER
	CAS NO.	RESULT	
Acetone	67-64-1	<20	U
Acrylonitrile	107-13-1	<20	U
Benzene	71-43-2	<1.0	U
Bromochloromethane	74-97-5	<1.0	U
Bromodichloromethane	75-27-4	<1.0	U
Bromoform	75-25-2	<1.0	U
Bromomethane	74-83-9	<1.0	U
Carbon disulfide	75-15-0	<1.0	U
Carbon tetrachloride	56-23-5	<1.0	U
Chlorobenzene	108-90-7	<1.0	U
Chlorodibromomethane	124-48-1	<1.0	U
Chloroethane	75-00-3	<1.0	U
Chloroform	67-66-3	<1.0	U
Chloromethane	74-87-3	<1.0	U
1,2-Dibromo-3-chloropropane	96-12-8	<1.0	U
1,2-Dibromoethane	106-93-4	<1.0	U
Dibromomethane	74-95-3	<1.0	U
1,2-Dichlorobenzene	95-50-1	<1.0	U
1,4-Dichlorobenzene	106-46-7	<1.0	U
trans-1,4-Dichloro-2-butene	110-57-6	<2.0	U
Dichlorodifluoromethane	75-71-8	<1.0	0.59J
1,1-Dichloroethane	75-34-3	<1.0	U
1,2-Dichloroethane	107-06-2	<1.0	U
1,1-Dichloroethene	75-35-4	<1.0	U
cis-1,2-Dichloroethene	156-59-2	<1.0	U
trans-1,2-Dichloroethene	156-60-5	<1.0	U
1,2-Dichloropropane	78-87-5	<1.0	U
cis-1,3-Dichloropropene	10061-01-5	<1.0	U
trans-1,3-Dichloropropene	10061-02-6	<1.0	U
Ethylbenzene	100-41-4	<1.0	U
2-Hexanone	591-78-6	<20	U
Iodomethane	74-88-4	<1.0	U
Methyl ethyl ketone	78-93-3	<20	U
Methyl isobutyl ketone	108-10-1	<20	U
Methylene chloride	75-09-2	<1.0	U
Styrene	100-42-5	<1.0	U
1,1,1,2-Tetrachloroethane	630-20-6	<1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	<1.0	U
Tetrachloroethene	127-18-4	<1.0	U
Toluene	108-88-3	<1.0	U
1,1,1-Trichloroethane	71-55-6	<1.0	U
1,1,2-Trichloroethane	79-00-5	<1.0	U
Trichloroethene	79-01-6	<1.0	U
Trichlorofluoromethane	75-69-4	<1.0	U
1,2,3-Trichloropropane	96-18-4	<1.0	U
Vinyl acetate	108-05-4	<1.0	U
Vinyl chloride	75-01-4	<1.0	U
m+p-Xylenes	108383/106423	<1.0	U
o-Xylene	95-47-6	<1.0	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added-ug/L	Measured-ug/L	%Rec	QC Limits
Dibromofluoromethane	10.0	9.73	97	74--120
1,2-Dichloroethane d4	10.0	10.1	101	74--120
Toluene d8	10.0	10.1	101	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODE EXPLANATIONS AND NOTES:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: S Reviewing Supervisor: my

/chem/5971A.i/va071000.b/jul102601026.d

LABORATORY ANALYSIS REPORT
Spoysa, B.
PO Box 692
Lewistown, MT 59457
Project ID:
SANITATION, INC LANDFILL, LEW.
Sample ID:
SIMW-1A
Laboratory ID:
00-55393-2
Sample Matrix:
Water
Sample Date:
27-Jun-00 1030
Received at lab:
29-Jun-00
Reported: 17-Jul-00

	Results	Units	Qual	Reporting Limit	Regulatory Limit	Method	Analized
Chloride	23	mg/l		1		EPA 300.0	01-Jul-00 0828 RLH
Sulfate	74	mg/l		1		EPA 300.0	01-Jul-00 0828 RLH
Specific Conductance @ 25 C	749	umhos/cm		1		SM 2510B	29-Jun-00 2038 QED
pH	6.4	s.u.		0.1		EPA 150.1	29-Jun-00 2038 QED
Chemical Oxygen Demand	5	mg/l		1		EPA 410.4	06-Jul-00 1246 BS
Nitrogen, Nitrate plus Nitrite	3.26	mg/l		0.05		EPA 353.2	03-Jul-00 1843 BAS
Total Cyanide	<0.005	mg/l	U	0.005		EPA 335.4	30-Jun-00 1730 ND
Dissolved Antimony	<0.05	mg/l	U	0.05		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Arsenic	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-00 2133 LAB
Dissolved Barium	<0.1	mg/l	U	0.1		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Beryllium	<0.001	mg/l	U	0.001		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Cadmium	<0.001	mg/l	U	0.001		EPA 200.8	13-Jul-00 2133 LAB
Dissolved Chromium	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Cobalt	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Copper	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Iron	<0.03	mg/l	U	0.03		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Lead	<0.01	mg/l	U	0.01		EPA 200.8	13-Jul-00 2133 LAB
Dissolved Mercury	<0.001	mg/l	U	0.001		EPA 200.8	13-Jul-00 2133 LAB
Dissolved Nickel	<0.01	mg/l	U	0.01		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Selenium	0.017	mg/l		0.005		EPA 200.8	13-Jul-00 2133 LAB
Dissolved Silver	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-00 2133 LAB
Dissolved Thallium	<0.1	mg/l	U	0.1		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Vanadium	<0.1	mg/l	U	0.1		EPA 200.7	05-Jul-00 2051 MKE
Dissolved Zinc	<0.01	mg/l	J	0.01		EPA 200.7	05-Jul-00 2051 MKE

U=Indicates parameter was analyzed for but not detected.

J=Present, but less than the detection limit.



ENERGY LABORATORIES, INC.

P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.com

Client: Spoya, B.
Date Sampled: 27-JUN-2000 10:30
Date Received: 29-JUN-2000 00:00
Analysis Date: 11-JUL-2000 00:28
Project Info: SANITATION, INC LANDFILL, LEW.
Sample Info: SIMW-1A

Lab No.: 002-00-55393
Report Date: 07/21/2000 11:47
Extraction Method: EPA 5030
Sample Matrix: WATER; pH= < 2

EPA METHOD 8260B: VOLATILE ORGANICS ANALYSIS REPORT

COMPOUNDS	CONCENTRATION UNITS = ug/L (ppb)		QUALIFIER
	CAS NO.	RESULT	
Acetone	67-64-1	<20	U
Acrylonitrile	107-13-1	<20	U
Benzene	71-43-2	<1.0	U
Bromochloromethane	74-97-5	<1.0	U
Bromodichloromethane	75-27-4	<1.0	U
Bromoform	75-25-2	<1.0	U
Bromomethane	74-83-9	<1.0	U
Carbon disulfide	75-15-0	<1.0	U
Carbon tetrachloride	56-23-5	<1.0	U
Chlorobenzene	108-90-7	<1.0	U
Chlorodibromomethane	124-48-1	<1.0	U
Chloroethane	75-00-3	<1.0	U
Chloroform	67-66-3	<1.0	U
Chloromethane	74-87-3	<1.0	U
1,2-Dibromo-3-chloropropane	96-12-8	<1.0	U
1,2-Dibromoethane	106-93-4	<1.0	U
Dibromomethane	74-95-3	<1.0	U
1,2-Dichlorobenzene	95-50-1	<1.0	U
1,4-Dichlorobenzene	106-46-7	<1.0	U
trans-1,4-Dichloro-2-butene	110-57-6	<2.0	U
Dichlorodifluoromethane	75-71-8	<1.0	0.63J
1,1-Dichloroethane	75-34-3	<1.0	U
1,2-Dichloroethane	107-06-2	<1.0	U
1,1-Dichloroethene	75-35-4	<1.0	U
cis-1,2-Dichloroethene	156-59-2	<1.0	U
trans-1,2-Dichloroethene	156-60-5	<1.0	U
1,2-Dichloropropane	78-87-5	<1.0	U
cis-1,3-Dichloropropene	10061-01-5	<1.0	U
trans-1,3-Dichloropropene	10061-02-6	<1.0	U
Ethylbenzene	100-41-4	<1.0	U
2-Hexanone	591-78-6	<20	U
Iodomethane	74-88-4	<1.0	U
Methyl ethyl ketone	78-93-3	<20	U
Methyl isobutyl ketone	108-10-1	<20	U
Methylene chloride	75-09-2	<1.0	U
Styrene	100-42-5	<1.0	U
1,1,1,2-Tetrachloroethane	630-20-6	<1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	<1.0	U
Tetrachloroethene	127-18-4	<1.0	U
Toluene	108-88-3	<1.0	U
1,1,1-Trichloroethane	71-55-6	<1.0	U
1,1,2-Trichloroethane	79-00-5	<1.0	U
Trichloroethene	79-01-6	<1.0	U
Trichlorofluoromethane	75-69-4	<1.0	U
1,2,3-Trichloropropane	96-18-4	<1.0	U
Vinyl acetate	108-05-4	<1.0	U
Vinyl chloride	75-01-4	<1.0	U
m+p-Xylenes	108383/106423	<1.0	U
o-Xylene	95-47-6	<1.0	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added-ug/L	Measured-ug/L	%Rec	QC Limits
Dibromofluoromethane	10.0	9.83	98	74--120
1,2-Dichloroethane d4	10.0	10.4	104	74--120
Toluene d8	10.0	9.68	97	80--120
p-Bromofluorobenzene	10.0	11.0	110	80--120

QUALIFIER CODE EXPLANATIONS AND NOTES:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: SC Reviewing Supervisor: AMJ

/chem/5971A.i/va071000.b/jul102701027.d

**ENERGY LABORATORIES, INC.**P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.com**LABORATORY ANALYSIS REPORT****Spoya, B.****PO Box 692****Lewistown, MT 59457****Project ID:****SANITATION, INC LANDFILL, LEW.****Sample ID:****SIMW-2****Laboratory ID:****00-55393-3****Sample Matrix:****Water****Sample Date:****27-Jun-00 1130****Received at lab:****29-Jun-00****Reported: 17-Jul-00**

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed	
				Limit	Limit			
Chloride	59 mg/l			1		EPA 300.0	01-Jul-00 0839	RLH
Sulfate	199 mg/l			1		EPA 300.0	01-Jul-00 0839	RLH
Specific Conductance @ 25 C	1100 umhos/cm			1		SM 2510B	29-Jun-00 2039	QED
pH	6.3 s.u.			0.1		EPA 150.1	29-Jun-00 2039	QED
Chemical Oxygen Demand	5 mg/l			1		EPA 410.4	06-Jul-00 1249	BS
Nitrogen, Nitrate plus Nitrite	2.57 mg/l			0.05		EPA 353.2	03-Jul-00 1844	BAS
Total Cyanide	<0.005 mg/l	U		0.005		EPA 335.4	30-Jun-00 1735	ND
Dissolved Antimony	<0.05 mg/l	U		0.05		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Arsenic	<0.005 mg/l	U		0.005		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Barium	<0.1 mg/l	U		0.1		EPA 200.7	05-Jul-00 2053	MKE
Dissolved Beryllium	<0.001 mg/l	U		0.001		EPA 200.7	05-Jul-00 2053	MKE
Dissolved Cadmium	0.001 mg/l			0.001		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Chromium	<0.01 mg/l	U		0.01		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Cobalt	<0.01 mg/l	U		0.01		EPA 200.7	05-Jul-00 2053	MKE
Dissolved Copper	<0.01 mg/l	U		0.01		EPA 200.7	05-Jul-00 2053	MKE
Dissolved Iron	<0.03 mg/l	U		0.03		EPA 200.7	05-Jul-00 2053	MKE
Dissolved Lead	<0.01 mg/l	U		0.01		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Mercury	<0.001 mg/l	U		0.001		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Nickel	<0.01 mg/l	U		0.01		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Selenium	0.005 mg/l			0.005		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Silver	<0.005 mg/l	U		0.005		EPA 200.8	13-Jul-00 2138	LAB
Dissolved Thallium	<0.1 mg/l	U		0.1		EPA 200.7	05-Jul-00 2053	MKE
Dissolved Vanadium	<0.1 mg/l	U		0.1		EPA 200.7	05-Jul-00 2053	MKE
Dissolved Zinc	0.03 mg/l			0.01		EPA 200.7	05-Jul-00 2053	MKE

U=Indicates parameter was analyzed for but not detected.



ENEI / LABORATORIES, INC.

P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.comClient: Spoya, B.
Date Sampled: 27-JUN-2000 11:30
Date Received: 29-JUN-2000 00:00
Analysis Date: 11-JUL-2000 01:05
Project Info: SANITATION, INC LANDFILL, LEW.
Sample Info: SIMW-2Lab No.: 003-00-55393
Report Date: 07/21/2000 11:48
Extraction Method: EPA 5030
Sample Matrix: WATER; pH= < 2

EPA METHOD 8260B: VOLATILE ORGANICS ANALYSIS REPORT

COMPOUNDS	CONCENTRATION UNITS = ug/L (ppb)		QUALIFIER
	CAS NO.	RESULT	
Acetone	67-64-1	<20	U
Acrylonitrile	107-13-1	<20	U
Benzene	71-43-2	<1.0	U
Bromochloromethane	74-97-5	<1.0	U
Bromodichloromethane	75-27-4	<1.0	U
Bromoform	75-25-2	<1.0	U
Bromomethane	74-83-9	<1.0	U
Carbon disulfide	75-15-0	<1.0	U
Carbon tetrachloride	56-23-5	<1.0	U
Chlorobenzene	108-90-7	<1.0	U
Chlorodibromomethane	124-48-1	<1.0	U
Chloroethane	75-00-3	<1.0	U
Chloroform	67-66-3	<1.0	U
Chloromethane	74-87-3	<1.0	U
1,2-Dibromo-3-chloropropane	96-12-8	<1.0	U
1,2-Dibromoethane	106-93-4	<1.0	U
Dibromomethane	74-95-3	<1.0	U
1,2-Dichlorobenzene	95-50-1	<1.0	U
1,4-Dichlorobenzene	106-46-7	<1.0	U
trans-1,4-Dichloro-2-butene	110-57-6	<2.0	U
Dichlorodifluoromethane	75-71-8	<1.0	0.32J
1,1-Dichloroethane	75-34-3	<1.0	U
1,2-Dichloroethane	107-06-2	<1.0	U
1,1-Dichloroethene	75-35-4	<1.0	U
cis-1,2-Dichloroethene	156-59-2	<1.0	U
trans-1,2-Dichloroethene	156-60-5	<1.0	U
1,2-Dichloropropane	78-87-5	<1.0	U
cis-1,3-Dichloropropene	10061-01-5	<1.0	U
trans-1,3-Dichloropropene	10061-02-6	<1.0	U
Ethylbenzene	100-41-4	<1.0	U
2-Hexanone	591-78-6	<20	U
Iodomethane	74-88-4	<1.0	U
Methyl ethyl ketone	78-93-3	<20	U
Methyl isobutyl ketone	108-10-1	<20	U
Methylene chloride	75-09-2	<1.0	U
Styrene	100-42-5	<1.0	U
1,1,1,2-Tetrachloroethane	630-20-6	<1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	<1.0	U
Tetrachloroethene	127-18-4	<1.0	U
Toluene	108-88-3	<1.0	U
1,1,1-Trichloroethane	71-55-6	<1.0	0.42J
1,1,2-Trichloroethane	79-00-5	<1.0	U
Trichloroethene	79-01-6	<1.0	U
Trichlorofluoromethane	75-69-4	<1.0	U
1,2,3-Trichloropropane	96-18-4	<1.0	U
Vinyl acetate	108-05-4	<1.0	U
Vinyl chloride	75-01-4	<1.0	U
m+p-Xylenes	108383/106423	<1.0	U
o-Xylene	95-47-6	<1.0	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added-ug/L	Measured-ug/L	%Rec	QC Limits
Dibromofluoromethane	10.0	9.95	99	74--120
1,2-Dichloroethane d4	10.0	9.96	100	74--120
Toluene d8	10.0	9.71	97	80--120
p-Bromofluorobenzene	10.0	11.0	110	80--120

QUALIFIER CODE EXPLANATIONS AND NOTES:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: Reviewing Supervisor:

/chem/5971A.1/va071000.b/jul102801028.d

**ENERGY LABORATORIES, INC.**P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.com**LABORATORY ANALYSIS REPORT****Spoya, B.****PO Box 692****Lewistown, MT 59457****Project ID:****SANITATION, INC LANDFILL, LEW.****Sample ID:****SIMW-3****Laboratory ID:****00-55393-4****Sample Matrix:****Water****Sample Date:****27-Jun-00 1230****Received at lab:****29-Jun-00****Reported: 17-Jul-00**

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed
				Limit	Limit		
Chloride	30 mg/l			1		EPA 300.0	01-Jul-00 0851 RLH
Sulfate	135 mg/l			1		EPA 300.0	01-Jul-00 0851 RLH
Specific Conductance @ 25 C	797 umhos/cm			1		SM 2510B	29-Jun-00 2040 QED
pH	6.5 s.u.			0.1		EPA 150.1	29-Jun-00 2040 QED
Chemical Oxygen Demand	6 mg/l			1		EPA 410.4	06-Jul-00 1251 BS
Nitrogen, Nitrate plus Nitrite	10.1 mg/l			0.05		EPA 353.2	06-Jul-00 1621 BAS
Total Cyanide	<0.005 mg/l	U		0.005		EPA 335.4	30-Jun-00 1739 ND
Dissolved Antimony	<0.05 mg/l	U		0.05		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Arsenic	<0.005 mg/l	U		0.005		EPA 200.8	13-Jul-00 2144 LAB
Dissolved Barium	<0.1 mg/l	U		0.1		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Beryllium	<0.001 mg/l	U		0.001		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Cadmium	<0.001 mg/l	U		0.001		EPA 200.8	13-Jul-00 2144 LAB
Dissolved Chromium	<0.01 mg/l	U		0.01		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Cobalt	<0.01 mg/l	U		0.01		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Copper	<0.01 mg/l	U		0.01		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Iron	<0.03 mg/l	U		0.03		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Lead	<0.01 mg/l	U		0.01		EPA 200.8	13-Jul-00 2144 LAB
Dissolved Mercury	<0.001 mg/l	U		0.001		EPA 200.8	13-Jul-00 2144 LAB
Dissolved Nickel	<0.01 mg/l	U		0.01		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Selenium	0.023 mg/l			0.005		EPA 200.8	13-Jul-00 2144 LAB
Dissolved Silver	<0.005 mg/l	U		0.005		EPA 200.8	13-Jul-00 2144 LAB
Dissolved Thallium	<0.1 mg/l	U		0.1		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Vanadium	<0.1 mg/l	U		0.1		EPA 200.7	05-Jul-00 2055 MKE
Dissolved Zinc	<0.01 mg/l	U		0.01		EPA 200.7	05-Jul-00 2055 MKE

U=Indicates parameter was analyzed for but not detected.



ENEF LABORATORIES, INC.

P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.comClient: Spoya, B.
Date Sampled: 27-JUN-2000 12:30
Date Received: 29-JUN-2000 00:00
Analysis Date: 11-JUL-2000 01:41
Project Info: SANITATION, INC LANDFILL, LEW.
Sample Info: SIMW-3Lab No.: 004-00-55393
Report Date: 07/21/2000 11:44
Extraction Method: EPA 5030
Sample Matrix: WATER; pH= < 2EPA METHOD 8260B: VOLATILE ORGANICS ANALYSIS REPORT

COMPOUNDS	CAS NO.	CONCENTRATION UNITS = ug/L (ppb)	RESULT	QUALIFIER
Acetone	67-64-1		<20	U
Acrylonitrile	107-13-1		<20	U
Benzene	71-43-2		<1.0	U
Bromochloromethane	74-97-5		<1.0	U
Bromodichloromethane	75-27-4		<1.0	U
Bromoform	75-25-2		<1.0	U
Bromomethane	74-83-9		<1.0	U
Carbon disulfide	75-15-0		<1.0	U
Carbon tetrachloride	56-23-5		<1.0	U
Chlorobenzene	108-90-7		<1.0	U
Chlorodibromomethane	124-48-1		<1.0	U
Chloroethane	75-00-3		<1.0	U
Chloroform	67-66-3		<1.0	U
Chloromethane	74-87-3		<1.0	U
1,2-Dibromo-3-chloropropane	96-12-8		<1.0	U
1,2-Dibromoethane	106-93-4		<1.0	U
Dibromomethane	74-95-3		<1.0	U
1,2-Dichlorobenzene	95-50-1		<1.0	U
1,4-Dichlorobenzene	106-46-7		<1.0	U
trans-1,4-Dichloro-2-butene	110-57-6		<2.0	U
Dichlorodifluoromethane	75-71-8		<1.0	0.32J
1,1-Dichloroethane	75-34-3		<1.0	U
1,2-Dichloroethane	107-06-2		<1.0	U
1,1-Dichloroethene	75-35-4		<1.0	U
cis-1,2-Dichloroethene	156-59-2		<1.0	U
trans-1,2-Dichloroethene	156-60-5		<1.0	U
1,2-Dichloropropane	78-87-5		<1.0	U
cis-1,3-Dichloropropene	10061-01-5		<1.0	U
trans-1,3-Dichloropropene	10061-02-6		<1.0	U
Ethylbenzene	100-41-4		<1.0	U
2-Hexanone	591-78-6		<20	U
Iodomethane	74-88-4		<1.0	U
Methyl ethyl ketone	78-93-3		<20	U
Methyl isobutyl ketone	108-10-1		<20	U
Methylene chloride	75-09-2		<1.0	U
Styrene	100-42-5		<1.0	U
1,1,1,2-Tetrachloroethane	630-20-6		<1.0	U
1,1,2,2-Tetrachloroethane	79-34-5		<1.0	U
Tetrachloroethene	127-18-4		<1.0	U
Toluene	108-88-3		<1.0	U
1,1,1-Trichloroethane	71-55-6		<1.0	U
1,1,2-Trichloroethane	79-00-5		<1.0	U
Trichloroethene	79-01-6		<1.0	U
Trichlorofluoromethane	75-69-4		<1.0	U
1,2,3-Trichloropropane	96-18-4		<1.0	U
Vinyl acetate	108-05-4		<1.0	U
Vinyl chloride	75-01-4		<1.0	U
m+p-Xylenes	108383/106423		<1.0	U
o-Xylene	95-47-6		<1.0	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added-ug/L	Measured-ug/L	%Rec	QC Limits
Dibromofluoromethane	10.0	10.1	101	74--120
1,2-Dichloroethane d4	10.0	10.3	103	74--120
Toluene d8	10.0	10.0	100	80--120
p-Bromofluorobenzene	10.0	10.4	104	80--120

QUALIFIER CODE EXPLANATIONS AND NOTES:

U= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

REPORT COMMENTS: None

Analyst: Reviewing Supervisor:

/chem/5971A.i/va071000.b/jul102901029.d



ENER LABORATORIES, INC.

P.O. BOX 30916 • 1120 SOUTH 27TH STREET • BILLINGS, MT 59107-0916 • PHONE (406) 252-6325
FAX (406) 252-6069 • 1-800-735-4489 • E-MAIL eli@energylab.com

Client: Spoya, B.
Date Sampled:
Date Received: 29-JUN-2000 00:00
Analysis Date: 10-JUL-2000 22:02
Project Info: SANITATION, INC LANDFILL, LEW.
Sample Info: TRIP BLANK

Lab No.: 005-00-55393
Report Date: 07/21/2000 11:45
Extraction Method: EPA 5030
Sample Matrix: WATER; pH= < 2

EPA METHOD 8260B: VOLATILE ORGANICS ANALYSIS REPORT

COMPOUNDS	CONCENTRATION UNITS = ug/L (ppb)		QUALIFIER
	CAS NO.	RESULT	
Acetone	67-64-1	<20	U
Acrylonitrile	107-13-1	<20	U
Benzene	71-43-2	<1.0	U
Bromochloromethane	74-97-5	<1.0	U
Bromodichloromethane	75-27-4	<1.0	U
Bromoform	75-25-2	<1.0	U
Bromomethane	74-83-9	<1.0	U
Carbon disulfide	75-15-0	<1.0	U
Carbon tetrachloride	56-23-5	<1.0	U
Chlorobenzene	108-90-7	<1.0	U
Chlorodibromomethane	124-48-1	<1.0	U
Chloroethane	75-00-3	<1.0	U
Chloroform	67-66-3	<1.0	U
Chloromethane	74-87-3	<1.0	U
1,2-Dibromo-3-chloropropane	96-12-8	<1.0	U
1,2-Dibromoethane	106-93-4	<1.0	U
Dibromomethane	74-95-3	<1.0	U
1,2-Dichlorobenzene	95-50-1	<1.0	U
1,4-Dichlorobenzene	106-46-7	<1.0	U
trans-1,4-Dichloro-2-butene	110-57-6	<2.0	U
Dichlorodifluoromethane	75-71-8	<1.0	U
1,1-Dichloroethane	75-34-3	<1.0	U
1,2-Dichloroethane	107-06-2	<1.0	U
1,1-Dichloroethene	75-35-4	<1.0	U
cis-1,2-Dichloroethene	156-59-2	<1.0	U
trans-1,2-Dichloroethene	156-60-5	<1.0	U
1,2-Dichloropropane	78-87-5	<1.0	U
cis-1,3-Dichloropropene	10061-01-5	<1.0	U
trans-1,3-Dichloropropene	10061-02-6	<1.0	U
Ethylbenzene	100-41-4	<1.0	U
2-Hexanone	591-78-6	<20	U
Iodomethane	74-88-4	<1.0	U
Methyl ethyl ketone	78-93-3	<20	U
Methyl isobutyl ketone	108-10-1	<20	U
Methylene chloride	75-09-2	<1.0	U
Styrene	100-42-5	<1.0	U
1,1,1,2-Tetrachloroethane	630-20-6	<1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	<1.0	U
Tetrachloroethene	127-18-4	<1.0	U
Toluene	108-88-3	<1.0	U
1,1,1-Trichloroethane	71-55-6	<1.0	U
1,1,2-Trichloroethane	79-00-5	<1.0	U
Trichloroethene	79-01-6	<1.0	U
Trichlorofluoromethane	75-69-4	<1.0	U
1,2,3-Trichloropropane	96-18-4	<1.0	U
Vinyl acetate	108-05-4	<1.0	U
Vinyl chloride	75-01-4	<1.0	U
m+p-Xylenes	108383/106423	<1.0	U
o-Xylene	95-47-6	<1.0	U

SURROGATE RECOVERY REPORT

Surrogate Compound	Added-ug/L	Measured-ug/L	%Rec	QC Limits
Dibromofluoromethane	10.0	10.3	103	74--120
1,2-Dichloroethane d4	10.0	9.79	98	74--120
Toluene d8	10.0	9.91	99	80--120
p-Bromofluorobenzene	10.0	11.1	111	80--120

QUALIFIER CODE EXPLANATIONS AND NOTES:

U indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: 2Reviewing Supervisor: Mj

/chem/5971A.i/va071000.b/jul102301023.d

Quality Control Sample: Laboratory Reagent Blank 10-JUL-2000 20:44

Report Date: 07/21/2000 11:45

Extraction Method: EPA 5030

Sample Matrix: WATER

Remarks: This Laboratory Reagent Blank Quality Control Sample was extracted and analyzed with your set of samples to determine if method analytes or other interferences are present in the laboratory environment, the reagents, or the apparatus.

EPA METHOD 8260B: VOLATILE ORGANICS ANALYSIS REPORT

CONCENTRATION UNITS = ug/L (ppb)			
COMPOUNDS	CAS NO.	RESULT	QUALIFIER
Acetone	67-64-1	<20	U
Acrylonitrile	107-13-1	<20	U
Benzene	71-43-2	<1.0	U
Bromochloromethane	74-97-5	<1.0	U
Bromodichloromethane	75-27-4	<1.0	U
Bromoform	75-25-2	<1.0	U
Bromomethane	74-83-9	<1.0	U
Carbon disulfide	75-15-0	<1.0	U
Carbon tetrachloride	56-23-5	<1.0	U
Chlorobenzene	108-90-7	<1.0	U
Chlorodibromomethane	124-48-1	<1.0	U
Chloroethane	75-00-3	<1.0	U
Chloroform	67-66-3	<1.0	U
Chloromethane	74-87-3	<1.0	U
1,2-Dibromo-3-chloropropane	96-12-8	<1.0	U
1,2-Dibromoethane	106-93-4	<1.0	U
Dibromomethane	74-95-3	<1.0	U
1,2-Dichlorobenzene	95-50-1	<1.0	U
1,4-Dichlorobenzene	106-46-7	<1.0	U
trans-1,4-Dichloro-2-butene	110-57-6	<2.0	U
Dichlorodifluoromethane	75-71-8	<1.0	U
1,1-Dichloroethane	75-34-3	<1.0	U
1,2-Dichloroethane	107-06-2	<1.0	U
1,1-Dichloroethene	75-35-4	<1.0	U
cis-1,2-Dichloroethene	156-59-2	<1.0	U
trans-1,2-Dichloroethene	156-60-5	<1.0	U
1,2-Dichloropropane	78-87-5	<1.0	U
cis-1,3-Dichloropropene	10061-01-5	<1.0	U
trans-1,3-Dichloropropene	10061-02-6	<1.0	U
Ethylbenzene	100-41-4	<1.0	U
2-Hexanone	591-78-6	<20	U
Iodomethane	74-88-4	<1.0	U
Methyl ethyl ketone	78-93-3	<20	U
Methyl isobutyl ketone	108-10-1	<20	U
Methylene chloride	75-09-2	<1.0	U
Styrene	100-42-5	<1.0	U
1,1,1,2-Tetrachloroethane	630-20-6	<1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	<1.0	U
Tetrachloroethene	127-18-4	<1.0	U
Toluene	108-88-3	<1.0	U
1,1,1-Trichloroethane	71-55-6	<1.0	U
1,1,2-Trichloroethane	79-00-5	<1.0	U
Trichloroethene	79-01-6	<1.0	U
Trichlorofluoromethane	75-69-4	<1.0	U
1,2,3-Trichloropropane	96-18-4	<1.0	U
Vinyl acetate	108-05-4	<1.0	U
Vinyl chloride	75-01-4	<1.0	U
m+p-Xylenes	108383/106423	<1.0	U
o-Xylene	95-47-6	<1.0	U

----- SURROGATE RECOVERY REPORT -----

Surrogate Compound	Added-ug/L	Measured-ug/L	%Rec	QC Limits
Dibromofluoromethane	10.0	9.70	97	74--120
1,2-Dichloroethane d4	10.0	9.98	100	74--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.8	108	80--120

QUALIFIER CODE EXPLANATIONS AND NOTES:

U= Indicates compound was analyzed for but not detected.

REPORT COMMENTS: None

Analyst: C

Reviewing Supervisor: Am

/chem/5971A.i/va071000.b/jul102101021.d

EPA METHOD 8260B: QUALITY ASSURANCE BLANK MATRIX SPIKE REPORT

Quality Control Sample: Reference Sample Analysis 10-JUL-2000 19:30

Report Date: 07/21/2000 11:33

Extraction Method: EPA 5030

Sample Matrix: WATER

File: /chem/5971A.i/va071000.b/jul101901019.d

Remarks: This reference sample was spiked into a blank sample matrix then extracted and analyzed with your set of samples to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate results.

Spike Compound	CONCENTRATION UNITS = ug/L (ppb)			
	Added	Measured	%Rec	QC Limits
Acetone	50.0	49.9	100	60--140
Benzene	5.00	5.49	110	60--140
Bromochloromethane	5.00	5.80	116	60--140
Bromodichloromethane	5.00	5.43	109	60--140
Bromoform	5.00	5.45	109	60--140
Bromomethane	5.00	5.78	116	60--140
Carbon tetrachloride	5.00	5.88	118	60--140
Chlorobenzene	5.00	5.50	110	60--140
Chlorodibromomethane	5.00	5.35	107	60--140
Chloroethane	5.00	5.32	106	60--140
Chloroform	5.00	5.71	114	60--140
Chloromethane	5.00	4.28	86	60--140
1,2-Dibromo-3-chloropropane	5.00	5.62	112	60--140
1,2-Dibromoethane	5.00	5.60	112	60--140
Dibromomethane	5.00	5.57	111	60--140
1,2-Dichlorobenzene	5.00	5.49	110	60--140
1,4-Dichlorobenzene	5.00	5.37	107	60--140
Dichlorodifluoromethane	5.00	4.72	94	60--140
1,1-Dichloroethane	5.00	5.78	116	60--140
1,1-Dichloroethene	5.00	5.78	116	60--140
cis-1,2-Dichloroethene	5.00	5.57	111	60--140
trans-1,2-Dichloroethene	5.00	5.92	118	60--140
1,2-Dichloropropane	5.00	5.47	109	60--140
cis-1,3-Dichloropropene	5.00	6.24	125	60--140
trans-1,3-Dichloropropene	5.00	5.57	111	60--140
Ethylbenzene	5.00	5.36	107	60--140
2-Hexanone	50.0	55.5	111	60--140
Methyl ethyl ketone	50.0	55.1	110	60--140
Methyl isobutyl ketone	50.0	54.7	109	60--140
Methylene chloride	5.00	5.81	116	60--140
Styrene	5.00	5.34	107	60--140
1,1,1,2-Tetrachloroethane	5.00	5.83	117	60--140
1,1,2,2-Tetrachloroethane	5.00	5.72	114	60--140
Tetrachloroethene	5.00	5.45	109	60--140
Toluene	5.00	5.43	109	60--140
1,1,1-Trichloroethane	5.00	5.67	113	60--140
1,1,2-Trichloroethane	5.00	5.65	113	60--140
Trichloroethene	5.00	5.77	115	60--140
Trichlorofluoromethane	5.00	5.42	108	60--140
1,2,3-Trichloropropane	5.00	5.97	119	60--140
Vinyl chloride	5.00	5.16	103	60--140
m+p-Xylenes	10.0	11.0	110	60--140
o-Xylene	5.00	5.65	113	60--140

SURROGATE RECOVERY REPORT

Surrogate Compound	Added-ug/L	Measured-ug/L	%Rec	QC Limits
Dibromofluoromethane	10.0	10.2	102	74--120
1,2-Dichloroethane d4	10.0	10.3	103	74--120
Toluene d8	10.0	10.2	102	80--120
p-Bromofluorobenzene	10.0	10.5	105	80--120

REPORT COMMENTS: None

Analyst: Reviewing Supervisor:

Lab Nos.

00-55393-1-4

QUALITY ASSURANCE DATA PACKAGE

This report is a summary of the results of quality assurance tests performed with the sample analyses. They are performed to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate and precise results. The date the quality assurance sample was analyzed is consistent with Energy Laboratories' Quality Assurance Plan.

<u>Constituents</u>	Duplicate Analysis	Spiked Analysis,	Blank Analysis,	Control Sample Analysis,	True Value
	-----mg/l (ppm)----- <u>Original Duplicate</u>	% <u>Recovery</u>	<u>mg/l (ppm)</u>	<u>mg/l (ppm)</u>	Acceptable +/- 10% <u>mg/l (ppm)</u>
Chloride	8	7	101	<1	25
Sulfate	257	254	105	<1	100
Specific Conductance, μ mhos/cm	797	793	N/A	<1	N/A
pH, s.u.	6.5	6.5	N/A	N/A	N/A
Chemical Oxygen Demand	5	4	97	<1	94
Nitrogen, Nitrate plus Nitrite	3.26	3.28	99	<0.05	2.47
Total Cyanide	<0.005	<0.005	93	<0.005	0.185
<u>Dissolved Metals</u>					
Antimony	<0.05	<0.05	96	<0.05	1.02
Arsenic	<0.005	<0.005	96	<0.005	0.052
Barium	<0.1	<0.1	90	<0.1	1.1
Beryllium	<0.001	<0.001	87	<0.001	0.510
Cadmium	<0.001	<0.001	94	<0.001	0.048
Chromium	<0.01	<0.01	90	<0.01	1.02
Cobalt	<0.01	<0.01	87	<0.01	0.99
Copper	<0.01	<0.01	89	<0.01	1.04
Iron	<0.03	<0.03	88	<0.03	5.02
Lead	<0.01	<0.01	104	<0.01	0.050
Mercury	<0.001	<0.001	109	<0.001	0.005
Nickel	<0.01	<0.01	87	<0.01	0.97
Selenium	<0.005	<0.005	88	<0.005	0.050
Silver	<0.005	<0.005	90	<0.005	0.018
Thallium	<0.1	<0.1	95	<0.1	1.1
Vanadium	<0.1	<0.1	93	<0.1	1.1
Zinc	<0.01	<0.01	87	<0.01	0.99

Date: 29-JUN-00

Received by: Justin McMillan

Logged In by: Justin McMillan

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s)
and associated sample custody information on receipt at the laboratory.

Chain of Custody Form
Completed & Signed

Yes Comments: _____

Chain of Custody Seal

No Comments: _____

Intact

N/A Comments: _____

Signature Match Chain of Custody vs. Seal

N/A Comments: _____

Samples Received Cold

N/A Comments: Received @ 15 C

Samples Received Within Holding Time

Yes Comments: _____

Samples Received in Proper Containers

Yes Comments: _____

Samples Received Properly Preserved

Yes Comments: _____

Samples requiring analysis for volatile organics are tested for proper preservation at the time of analysis.
Any preservation problems encountered for these samples are noted on the analytical parameter report pages.

Client notified about sample discrepancies:

Who: _____ By: _____ Date/Time: _____

Method of Shipping: Hand del.

Additional comments: _____



Received Date: 06/29/00 Cust. No.: 00cash 679
Login Date: _____ Custody Seal: Yes ☒ No ☐
Shipped by: Hand Del In tact: Yes ☐ No ☐
Shipping Bill #: _____ Signature Match?: Yes ☐ No ☐
Code Six: _____ If no - Reason: _____

154

RAPID CITY, SD
P.O. Box 2470 (57709) watts 888-672-1225
610 Farnwood (57701) voice 605-342-1225
Fax 605-342-1397

Comments, Special Instructions, etc.

	✓
--	---

Received for Laboratory by: _____
(signature)

No. 25

(signature)
East. mem. ll.

DAMSCHEEN & ASSOCIATES, INC.
Landfill Ground-Water Monitoring Field Report

Project Name/Number Sanitation Inc Well Number SWW-1

Sampler(s) RS

Date 6/27/00 Time 1030

Conditions _____

Field Data:

Table (circle) (1) 2

Depth to Water 45.81 Total Depth _____

Volume of Water Purged 2+ LITERS ALLOWED 2 HRS RECOVERY
@ SAMPLE

Temperature--#1 _____ --#2 _____ --#3 _____ --#4 _____

Conductivity--#1 930 --#2 _____ --#3 _____ --#4 _____

pH--#1 7.91 --#2 _____ --#3 _____ --#4 _____

Recovery: h₁ _____ h₂ _____ time _____

Sample Preservatives:

1000 ml, 6, w/ no preservative N/A
250 ml w/ H₂SO₄ (yellow) X
250 ml w/ HNO₃ (red), filtered _____
250 ml w/ NaOH (green) _____
500 ml w/ no preservative _____
40 ml, 2, w/ HCl (blue) _____

Comments (attach change of instrumentation information to this sheet if necessary):

DAMSCHEEN & ASSOCIATES, INC.
Landfill Ground-Water Monitoring Field Report

Project Name/Number SANITATION, INC Well Number Simw-2

Sampler(s) (B5)

Date 6/27/00 Time 1130

Conditions _____

Field Data:

Table (circle) 1 2

Depth to Water 37.16 feet Total Depth 42.5'

Volume of Water Purged ~ 1 GAC - Purged PRV

@ Sample

Temperature--#1 _____ --#2 _____ --#3 _____ --#4 _____

Conductivity--#1 1356 --#2 _____ --#3 _____ --#4 _____

pH--#1 7.00 --#2 _____ --#3 _____ --#4 _____

Recovery: h₁ 0 h₂ 0.02 time 16 sec

Sample Preservatives:

1000 ml, 6, w/ no preservative	<u>W/A</u>
250 ml w/ H ₂ SO ₄ (yellow)	<u>7</u>
250 ml w/ HNO ₃ (red), filtered	<u>7</u>
250 ml w/ NaOH (green)	<u>7</u>
500 ml w/ no preservative	<u>7</u>
40 ml, 2, w/ HCl (blue)	<u>7</u>

Comments (attach change of instrumentation information to this sheet if necessary):

DAMSCHEEN & ASSOCIATES, INC.
Landfill Ground-Water Monitoring Field Report

Project Name/Number SANITATION Well Number Simu-3

Sampler(s) (B3)

Date 6/27/00 Time 1230

Conditions _____

Field Data:

Table (circle) 1 2

Depth to Water 33.92 Total Depth 41.5

Volume of Water Purged .14 gal - Purged NEARLY DRY
@ Sample

Temperature--#1 _____ --#2 _____ --#3 _____ --#4 _____

Conductivity--#1 1051 --#2 _____ --#3 _____ --#4 _____

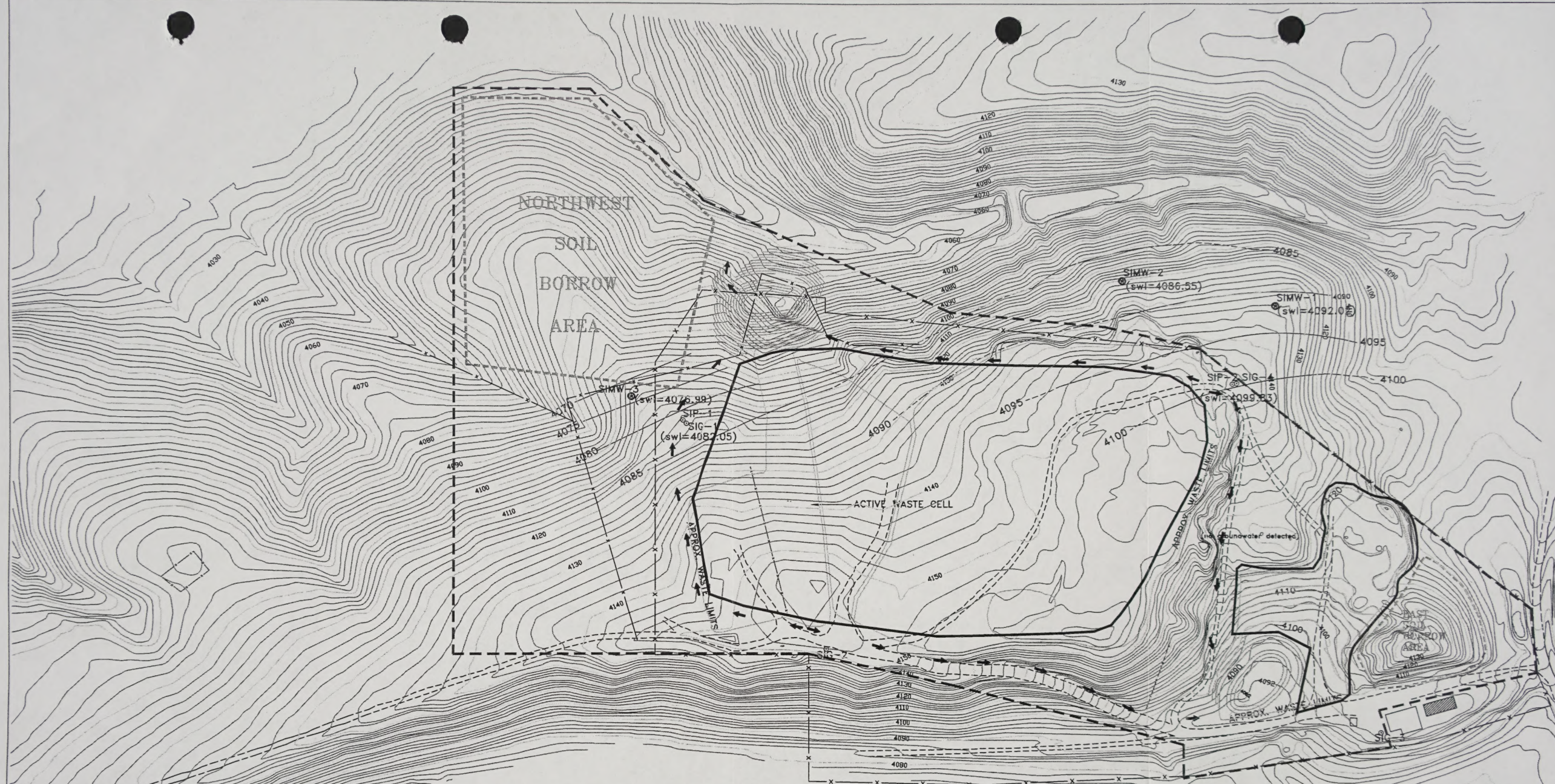
pH--#1 7.48 --#2 _____ --#3 _____ --#4 _____

Recovery: h₁ 0.00 h₂ 6.00 time 6 @ 38'

Sample Preservatives:

1000 ml, 6, w/ no preservative N/A
250 ml w/ H₂SO₄ (yellow) X
250 ml w/ HNO₃ (red), filtered _____
250 ml w/ NaOH (green) _____
500 ml w/ no preservative _____
40 ml, 2, w/ HCl (blue) _____

Comments (attach change of instrumentation information to this sheet if necessary):



LEGEND

- SI-1 test boring (plugged)
- ▲ SIG-1 landfill gas monitoring well
- ◻ SIP-1 piezometer, showing static water level elevation
- SIMW-1 ground-water monitoring well, showing static water level elevation.
- water table contour; interval two feet
- contact of carbonaceous grey clay shale with overlying sandstone, siltstone and shale; dashed where obscured; dotted where uncertain
- topographic contour interval = 2 ft
- groundwater measurements from 6/15/99



PROJECT TITLE
SANITATION INC.
Lewistown, Montana

SHEET TITLE
Site Plan

SHEET NO.
1
of

JOB/ACAD NUMBER: 85-00058-10

DRAWN BY: B. LLOYD

APPROVED BY: B. DAMSCHEN

CHECKED BY: B. SEIGMUND

DATE: AUGUST, 1996

#	DATE	REVISION
1	8/96	BLS
2	8/96	BLS
3	8/96	BLS



ENTRANCO

Transportation
•
Construction
Management
•
Development
•
Surveying
•
Environmental
Resources
•
Ports/Airports
•
Planning
•
Water/
Wastewater

March 21, 2002

Pat Potts
Montana Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

RECEIVED

MAR 22 2002

MONTANA
DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

Dear Ms. Potts:

Enclosed please find the results of the Autumn, 2001 ground-water monitoring at the closed Sanitation, Inc. landfill in Lewistown, Montana. Sampling was undertaken on October 30, 2001.

Ground-Water Flow

The water levels were down slightly in all of the installations at the facility when compared to the previously-obtained readings, with the exception of piezometer SIP-2 and monitoring well SIMW-1, which had water only in the base plugs, which means that the zone that usually supplies water to the wells was not saturated. The other wells recovered after purging at rates similar to those previously observed, so it is concluded that no significant changes have occurred in the wells or the saturated zone.

The hydraulic gradient (I) near SIMW-1 and -2 could not be properly measured because there was no water level available from SIMW-1 or SIP 2. The gradient near SIMW-3 and SIP-1 is approximately 0.04, which is unchanged from the previously-measured gradient. Using the previously-accepted estimated porosity (n_e) of 0.35, the seepage velocity (V_s) can be calculated for the area around each of the wells. The hydraulic conductivity (K) for the area around SIMW-3 was measured at 3.2×10^{-3} cm/sec (9.2 ft/day). Using

$$V_s = KI/n_e$$

the seepage velocity for the area around SIMW-1 can be calculated as 3.66×10^{-4} cm/day (1.04ft/day).

Ground-Water Quality

Because of the absence of water in well SIMW-1 or piezometer SIP-2 samples were not collected. Normal sampling was undertaken in the remaining two monitoring wells. VOCs were not detected in the sample from monitoring well

Fergus Co
Sanitation Inc #291
grdwtr mon (ANALY)
X

PO Box 4817
2030 11th Avenue
Suite 11
Helena, Montana
59604
Telephone 406 449 8627
Fax 406 449 8631

**ENTRANCO**

Transportation
•
Construction
Management
•
Development
•
Surveying
•
Environmental
Resources
•
Ports/Airports
•
Planning
•
Water/
Wastewater

SIMW-2. Dichlorodifluoromethane was found in the sample and the duplicate from well SIMW-3, both values being reported as below the practical quantitation limit. Neither of these constituted statistical or human health standard exceedences.

Intra-well prediction analysis revealed no statistical exceedences for any constituent in the Table 1 list. Nitrate, while still present in all samples, failed trigger statistical exceedences and fell below the human health standard of 10 mg/l in one of the samples from well SIMW-3. The duplicate sample from that well reportedly contained 10.7 mg/l nitrate, which exceeds the MCL of 10 mg/l.

This facility is currently undergoing changes in the sampling regime, and additional work has been proposed at the facility. That work plan has been finalized and further sampling will be based upon the outcome of the drilling. If you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

ENTRANCO, INC.

Bruce L. Siegmund
Senior Hydrogeologist

CC: William Spoja
Barry Damschen Consulting

enclosures

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Chloride

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 13

Maximum Baseline Concentration = 36

Confidence Level = 92.9%

False Positive Rate = 7.1%

Baseline Samples	Date	Result
	8/16/1995	34
	6/10/1996	30
	10/22/1996	34
	6/3/1997	27
	11/4/1997	30
	11/4/1997	30
	6/16/1998	23
	10/6/1998	25
	6/15/1999	25
	10/6/1999	27
	6/27/2000	30
	10/17/2000	32
	7/6/2001	36

Date	Samples	Mean	Impacted
10/30/2001	2	34.5	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Sulfate

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 15

Maximum Baseline Concentration = 224

Confidence Level = 93.8%

False Positive Rate = 6.2%

Baseline Samples	Date	Result
	8/16/1995	224
	6/10/1996	195
	10/22/1996	214
	6/3/1997	202
	11/4/1997	211
	6/16/1998	201
	6/16/1998	202
	10/6/1998	203
	10/6/1998	191
	6/15/1999	177
	10/6/1999	193
	6/27/2000	199
	10/17/2000	201
	10/17/2000	199
	7/6/2001	214

Date	Samples	Mean	Impacted
10/30/2001	1	205	FALSE

Non-Parametric Prediction Interval**Intra-Well Comparison for SIMW-3****Parameter: Sulfate**

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 13

Maximum Baseline Concentration = 140

Confidence Level = 92.9%

False Positive Rate = 7.1%

Baseline Samples	Date	Result
	8/16/1995	140
	6/10/1996	139
	10/22/1996	133
	6/3/1997	134
	11/4/1997	131
	11/4/1997	131
	6/16/1998	129
	10/6/1998	128
	6/15/1999	121
	10/6/1999	124
	6/27/2000	135
	10/17/2000	139
	7/6/2001	135

Date	Samples	Mean	Impacted
10/30/2001	2	133.5	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Specific Conductivity

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 15

Maximum Baseline Concentration = 1480

Confidence Level = 93.8%

False Positive Rate = 6.2%

Baseline Samples	Date	Result
	8/16/1995	1480
	6/10/1996	1180
	10/22/1996	1180
	6/3/1997	1040
	11/4/1997	1110
	6/16/1998	1150
	6/16/1998	1150
	10/6/1998	1140
	10/6/1998	1130
	6/15/1999	1170
	10/6/1999	1100
	6/27/2000	1100
	10/17/2000	1130
	10/17/2000	1120
	7/6/2001	1140

Date	Samples	Mean	Impacted
10/30/2001	1	1170	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-3

Parameter: Specific Conductivity

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 14

Maximum Baseline Concentration = 893

Confidence Level = 93.3%

False Positive Rate = 6.7%

Baseline Samples	Date	Result
	8/16/1995	893
	6/10/1996	750
	10/22/1996	706
	6/3/1997	683
	11/4/1997	767
	11/4/1997	767
	6/16/1998	739
	10/6/1998	731
	6/15/1999	707
	10/6/1999	744
	6/27/2000	797
	10/17/2000	808
	7/6/2001	870
	7/6/2001	864

Date	Samples	Mean	Impacted
10/30/2001	2	865.5	FALSE

Non-Parametric Prediction Interval**Intra-Well Comparison for SIMW-2****Parameter: Nitrate**

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 15

Maximum Baseline Concentration = 4.18

Confidence Level = 93.8%

False Positive Rate = 6.2%

Baseline Samples	Date	Result
	8/16/1995	3.78
	6/10/1996	4.18
	10/22/1996	2.6
	6/3/1997	2.11
	11/4/1997	3.95
	6/16/1998	2.32
	6/16/1998	2.37
	10/6/1998	3.97
	10/6/1998	2.83
	6/15/1999	3.26
	10/6/1999	2.46
	6/27/2000	2.57
	10/17/2000	1.93
	10/17/2000	1.9
	7/6/2001	1.05

Date	Samples	Mean	Impacted
10/30/2001	1	0.94	FALSE

Non-Parametric Prediction Interval**Intra-Well Comparison for SIMW-3****Parameter: Nitrate**

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 14

Maximum Baseline Concentration = 935

Confidence Level = 93.3%

False Positive Rate = 6.7%

Baseline Samples	Date	Result
	8/16/1995	8.96
	6/10/1996	9.25
	10/22/1996	9.09
	6/3/1997	9.08
	11/4/1997	935
	11/4/1997	9.2
	6/16/1998	12.2
	10/6/1998	11
	6/15/1999	11.7
	10/6/1999	11.5
	6/27/2000	10.1
	10/17/2000	9.76
	7/6/2001	8.79
	7/6/2001	8.77

Date	Samples	Mean	Impacted
10/30/2001	2	9.36	FALSE

Non-Parametric Prediction Interval**Intra-Well Comparison for SIMW-2****Parameter: Iron, dissolved**

Total Percent Non-Detects = 66.6667%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 15

Maximum Baseline Concentration = 1.29

Confidence Level = 93.8%

False Positive Rate = 6.2%

Baseline Samples	Date	Result
	8/16/1995	ND<0.03
	6/10/1996	ND<0.03
	10/22/1996	1.29
	6/3/1997	0.06
	11/4/1997	ND<0.03
	6/16/1998	0.05
	6/16/1998	0.05
	10/6/1998	0.05
	10/6/1998	ND<0.03
	6/15/1999	ND<0.03
	10/6/1999	ND<0.03
	6/27/2000	ND<0.03
	10/17/2000	ND<0.03
	10/17/2000	ND<0.03
	7/6/2001	ND<0.03

Date	Samples	Mean	Impacted
10/30/2001	1	0.08	FALSE

Non-Parametric Prediction Interval**Intra-Well Comparison for SIMW-3****Parameter: Iron, dissolved**

Total Percent Non-Detects = 64.2857%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 14

Maximum Baseline Concentration = 12.9

Confidence Level = 93.3%

False Positive Rate = 6.7%

Baseline Samples	Date	Result
	8/16/1995	ND<0.03
	6/10/1996	0.1
	10/22/1996	0.03
	6/3/1997	ND<0.03
	11/4/1997	ND<0.03
	11/4/1997	ND<0.03
	6/16/1998	0.24
	10/6/1998	ND<0.03
	6/15/1999	12.9
	10/6/1999	ND<0.03
	6/27/2000	ND<0.03
	10/17/2000	ND<0.03
	7/6/2001	ND<0.03
	7/6/2001	0.03

Date	Samples	Mean	Impacted
10/30/2001	2	0.03	FALSE

Non-Parametric Prediction Interval**Intra-Well Comparison for SIMW-2****Parameter: Zinc, dissolved**

Total Percent Non-Detects = 40%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 15

Maximum Baseline Concentration = 0.08

Confidence Level = 93.8%

False Positive Rate = 6.2%

Baseline Samples**Date****Result**

8/16/1995	ND<0.01
6/10/1996	ND<0.01
10/22/1996	0.03
6/3/1997	0.06
11/4/1997	ND<0.01
6/16/1998	0.02
6/16/1998	0.02
10/6/1998	0.02
10/6/1998	0.02
6/15/1999	0.01 j
10/6/1999	0.08
6/27/2000	ND<0.01
10/17/2000	ND<0
10/17/2000	ND<0.01 j
7/6/2001	0.01

Date**Samples****Mean****Impacted**

10/30/2001

1

0.01

FALSE

LABORATORY ANALYSIS REPORT

Sanitation Inc.
Bill Spoja
PO Box 882
Lewistown, MT 59457

Project ID: SANITATION, INC., LEWISTOWN, MT
Sample ID: SIMW-2
Laboratory ID: 01-59709-1
Sample Matrix: Water
Sample Date: 30-Oct-01 1000
Received at lab: 01-Nov-01

Reported: 09-Nov-01

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed	
				Limit	Limit			
Chloride	61	mg/l		1		EPA 300.0	05-Nov-01 1815	LDV
Sulfate	205	mg/l		1		EPA 300.0	05-Nov-01 1815	LDV
Specific Conductance @ 25 C	1170	umhos/cm		1		SM 2510B	01-Nov-01 1724	KP
pH	7.5	s.u.		0.1		EPA 150.1	01-Nov-01 1724	KP
Chemical Oxygen Demand	4	mg/l		1		EPA 410.4	05-Nov-01 0830	BS
Nitrogen, Nitrate plus Nitrite	0.94	mg/l		0.05		EPA 353.2	02-Nov-01 1501	DDB
Cyanide, Total	<0.005	mg/l	U	0.005		EPA 335.3	02-Nov-01 1106	ND
Antimony, Dissolved	<0.05	mg/l	U	0.05		EPA 200.7	05-Nov-01 2241	RLH
Arsenic, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	07-Nov-01 1858	LB/JW
Barium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2241	RLH
Beryllium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	05-Nov-01 2241	RLH
Cadmium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	07-Nov-01 1858	LB/JW
Chromium, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	05-Nov-01 2241	RLH
Cobalt, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	05-Nov-01 2241	RLH
Copper, Dissolved	<0.01	mg/l	J	0.01		EPA 200.7	05-Nov-01 2241	RLH
Iron, Dissolved	0.08	mg/l		0.03		EPA 200.7	05-Nov-01 2241	RLH
Lead, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	07-Nov-01 1858	LB/JW
Mercury, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	07-Nov-01 1858	LB/JW
Nickel, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	07-Nov-01 1858	LB/JW
Selenium, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	07-Nov-01 1858	LB/JW
Silver, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	07-Nov-01 1858	LB/JW
Thallium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.8	07-Nov-01 1858	LB/JW
Vanadium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2241	RLH
Zinc, Dissolved	0.01	mg/l		0.01		EPA 200.8	07-Nov-01 1858	LB/JW

U=Indicates parameter was analyzed for but not detected.

J=Present, but less than the practical quantitation limit.

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **SIMW-2**
 Project Info: **SANITATION, INC., LEWISTOWN, MT**
 Lab ID: **001-01-59709**
 Matrix: **WATER; pH= < 2**

Date Reported: **12/11/01**
 Date Sampled: **10/30/01 10:00**
 Date Received: **11/01/01**
 Date Analyzed: **11/12/01 21:33**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	MEASURED		
Dibromofluoromethane	10	10.3	103	74-121
1,2-Dichloroethane d4	10	9.86	99	72-116
Toluene d8	10	10	100	85-115
p-Bromofluorobenzene	10	9.92	99	87-124

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A/wa111201.b/hov121701017.d

LABORATORY ANALYSIS REPORT
Sanitation Inc.
Bill Spoja
PO Box 882
Lewistown, MT 59457
Project ID: SANITATION, INC., LEWISTOWN, MT
Sample ID: SIMW-3
Laboratory ID: 01-59709-2
Sample Matrix: Water
Sample Date: 30-Oct-01 1100
Received at lab: 01-Nov-01

Reported: 09-Nov-01

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed	
				Limit	Limit			
Chloride	34	mg/l		1		EPA 300.0	05-Nov-01 1825	LDV
Sulfate	134	mg/l		1		EPA 300.0	05-Nov-01 1825	LDV
Specific Conductance @ 25 C	866	umhos/cm		1		SM 2510B	01-Nov-01 1725	KP
pH	7.4	s.u.		0.1		EPA 150.1	01-Nov-01 1725	KP
Chemical Oxygen Demand	5	mg/l		1		EPA 410.4	05-Nov-01 0830	BS
Nitrogen, Nitrate plus Nitrite	10.7	mg/l		0.05		EPA 353.2	02-Nov-01 1532	DDB
Cyanide, Total	<0.005	mg/l	U	0.005		EPA 335.3	02-Nov-01 1113	ND
Antimony, Dissolved	<0.05	mg/l	U	0.05		EPA 200.7	05-Nov-01 2245	RLH
Arsenic, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	07-Nov-01 1918	LB/JW
Barium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2245	RLH
Beryllium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	05-Nov-01 2245	RLH
Cadmium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	05-Nov-01 2245	RLH
Chromium, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	05-Nov-01 2245	RLH
Cobalt, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	05-Nov-01 2245	RLH
Copper, Dissolved	<0.01	mg/l	J	0.01		EPA 200.7	05-Nov-01 2245	RLH
Iron, Dissolved	<0.03	mg/l	U	0.03		EPA 200.7	05-Nov-01 2245	RLH
Lead, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	07-Nov-01 1918	LB/JW
Mercury, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	07-Nov-01 1918	LB/JW
Nickel, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	05-Nov-01 2245	RLH
Selenium, Dissolved	0.020	mg/l		0.005		EPA 200.8	07-Nov-01 1918	LB/JW
Silver, Dissolved	<0.005	mg/l	U	0.005		EPA 200.7	05-Nov-01 2245	RLH
Thallium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2245	RLH
Vanadium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2245	RLH
Zinc, Dissolved	0.03	mg/l		0.01		EPA 200.7	05-Nov-01 2245	RLH

U=Indicates parameter was analyzed for but not detected.
J=Present, but less than the practical quantitation limit.

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **SIMW-3**
 Project Info: **SANITATION, INC., LEWISTOWN, MT**
 Lab ID: **002-01-59709**
 Matrix: **WATER; pH= < 2**

Date Reported: **12/11/01**
 Date Sampled: **10/30/01 11:00**
 Date Received: **11/01/01**
 Date Analyzed: **11/12/01 22:07**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.34)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	MEASURED		
Dibromofluoromethane	10	10.4	104	74-121
1,2-Dichloroethane d4	10	9.51	95	72-116
Toluene d8	10	9.84	98	85-115
p-Bromofluorobenzene	10	10.1	101	87-124

REPORT COMMENTS: None

Analyst:  Reviewing Supervisor: 

lchem/5971A.lva111201.bhov121801018.d

LABORATORY ANALYSIS REPORT
Sanitation Inc.
Bill Spoja
PO Box 882
Lewistown, MT 59457
Project ID: SANITATION, INC., LEWISTOWN, MT
Sample ID: SIMW-3D
Laboratory ID: 01-59709-3
Sample Matrix: Water
Sample Date: 30-Oct-01 1100
Received at lab: 01-Nov-01

Reported: 09-Nov-01

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed	
				Limit	Limit			
Chloride	35	mg/l		1		EPA 300.0	05-Nov-01 1836	LDV
Sulfate	133	mg/l		1		EPA 300.0	05-Nov-01 1836	LDV
Specific Conductance @ 25 C	865	umhos/cm		1		SM 2510B	01-Nov-01 1726	KP
pH	7.5	s.u.		0.1		EPA 150.1	01-Nov-01 1726	KP
Chemical Oxygen Demand	4	mg/l		1		EPA 410.4	05-Nov-01 0830	BS
Nitrogen, Nitrate plus Nitrite	8.02	mg/l		0.05		EPA 353.2	02-Nov-01 1532	DDB
Cyanide, Total	<0.005	mg/l	U	0.005		EPA 335.3	02-Nov-01 1121	ND
Antimony, Dissolved	<0.05	mg/l	U	0.05		EPA 200.7	05-Nov-01 2248	RLH
Arsenic, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	07-Nov-01 1923	LB/JW
Barium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2248	RLH
Beryllium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	05-Nov-01 2248	RLH
Cadmium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	05-Nov-01 2248	RLH
Chromium, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	05-Nov-01 2248	RLH
Cobalt, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	05-Nov-01 2248	RLH
Copper, Dissolved	<0.01	mg/l	J	0.01		EPA 200.7	05-Nov-01 2248	RLH
Iron, Dissolved	<0.03	mg/l	U	0.03		EPA 200.7	05-Nov-01 2248	RLH
Lead, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	07-Nov-01 1923	LB/JW
Mercury, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	07-Nov-01 1923	LB/JW
Nickel, Dissolved	<0.01	mg/l	J	0.01		EPA 200.7	05-Nov-01 2248	RLH
Selenium, Dissolved	0.019	mg/l		0.005		EPA 200.8	07-Nov-01 1923	LB/JW
Silver, Dissolved	<0.005	mg/l	U	0.005		EPA 200.7	05-Nov-01 2248	RLH
Thallium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2248	RLH
Vanadium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	05-Nov-01 2248	RLH
Zinc, Dissolved	0.03	mg/l		0.01		EPA 200.7	05-Nov-01 2248	RLH

U=Indicates parameter was analyzed for but not detected.
J=Present, but less than the practical quantitation limit.

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **SIMW-3D**
 Project Info: **SANITATION, INC., LEWISTOWN, MT**
 Lab ID: **003-01-59709**
 Matrix: **WATER; pH= < 2**

Date Reported: **12/11/01**
 Date Sampled: **10/30/01 11:00**
 Date Received: **11/01/01**
 Date Analyzed: **11/12/01 22:41**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.32)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

SYSTEM MONITORING COMPOUNDS	Runtime Quality Assurance Report			ACCEPTANCE RANGE
	CONCENTRATION(µg/L)		PERCENT	
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	10	100	74-121
1,2-Dichloroethane d4	10	9.93	99	72-116
Toluene d8	10	9.67	97	85-115
p-Bromofluorobenzene	10	9.78	98	87-124

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A.I/ve111201.b/hov121901019.d

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **TRIP BLANK**
 Project Info: **SANITATION, INC., LEWISTOWN, MT**
 Lab ID: **004-01-59709**
 Matrix: **WATER; pH= < 2**

Date Reported: 12/11/01
 Date Sampled:
 Date Received: 11/01/01
 Date Analyzed: 11/13/01 08:13

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION (µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE
	ADDED	MEASURED	RECOVERY	RANGE
Dibromofluoromethane	10	10	100	74-121
1,2-Dichloroethane d4	10	9.80	98	72-116
Toluene d8	10	9.69	97	85-115
p-Bromofluorobenzene	10	9.81	98	87-124

REPORT COMMENTS: None

Analyst:  Reviewing Supervisor: 

/chem/5971A.I/ve111201.bhov123601036.d

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: METHOD BLANK

Sample ID: Quality Assurance Method Blank
 Matrix: WATER
 Extract Method: EPA 5030

Date Reported: 12/11/01
 Date Analyzed: 11/12/01 13:05

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report				
SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	9.91	99	74--121
1,2-Dichloroethane d4	10	10	100	72--116
Toluene d8	10	9.73	97	85--115
p-Bromofluorobenzene	10	9.77	98	87--124

REPORT COMMENTS: None

Analyst: ES Reviewing Supervisor: WJ

/chem/5971A.lva/111201.bhov120501005.d

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: METHOD BLANK

Sample ID: Quality Assurance Method Blank
 Matrix: WATER
 Extract Method: EPA 5030

Date Reported: 12/11/01
 Date Analyzed: 11/13/01 01:30

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report				ACCEPTANCE RANGE
SYSTEM MONITORING COMPOUNDS	ADDED	MEASURED	PERCENT RECOVERY	
Dibromofluoromethane	10	10.2	102	74-121
1,2-Dichloroethane d4	10	9.67	97	72-116
Toluene d8	10	9.59	96	85-115
p-Bromofluorobenzene	10	9.66	97	87-124

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A.I/va111201.b/hov122401024.d

Lab Nos. 01-59709-1-3

QUALITY ASSURANCE DATA PACKAGE

This report is a summary of the results of the quality assurance tests performed with the sample analyses. They are performed to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate and precise results. The date the quality assurance sample was analyzed is consistent with Energy Laboratories' Quality Assurance Plan.

Constituents	Duplicate Analysis		Spiked Analysis	Blank Analysis	Calibration Sample Analysis	True Value, Acceptable
	--- mg/l (ppm) ---		%			+/- 10%
	Original	Duplicate	Recovery	mg/l (ppm)	mg/l (ppm)	mg/l (ppm)
Chloride	8	7	97	<1	25	25
Sulfate	323	324	107	<1	103	100
Specific Conductance, μ mhos/cm	2610	2610	NA	<1	NA	NA
pH, s.u.	8.6	8.6	NA	NA	NA	NA
Chemical Oxygen Demand	31	32	95	<1	176	187
Nitrogen, Nitrate plus Nitrite	0.93	0.91	93	<0.05	5.32	5.42
Cyanide, Total	0.098	0.099	98	<0.005	0.128	0.126
Antimony, Dissolved	<0.05	<0.05	98	<0.05	5.14	5
Arsenic, Dissolved	<0.005	<0.005	97	<0.005	0.050	0.05
Barium, Dissolved	<0.1	<0.1	108	<0.1	5.1	5
Beryllium, Dissolved	<0.001	<0.001	111	<0.001	2.67	2.5
Cadmium, Dissolved	<0.001	<0.001	101	<0.001	5.18	5
Chromium, Dissolved	<0.01	<0.01	106	<0.01	5.31	5
Cobalt, Dissolved	<0.01	<0.01	102	<0.01	5.08	5
Copper, Dissolved	0.02	0.03	100	<0.01	4.89	5
Iron, Dissolved	0.07	0.08	103	<0.03	5.27	5
Lead, Dissolved	<0.01	<0.01	96	<0.01	0.048	0.05
Mercury, Dissolved	<0.001	<0.001	100	<0.001	0.0025	0.0025
Nickel, Dissolved	<0.01	<0.01	102	<0.01	5.09	5
Selenium, Dissolved	<0.005	<0.005	93	<0.005	0.050	0.05
Silver, Dissolved	<0.005	<0.005	95	<0.005	0.208	0.2
Thallium, Dissolved	<0.1	<0.1	84	<0.1	5.2	5
Vanadium, Dissolved	<0.1	<0.1	103	<0.1	5.1	5
Zinc, Dissolved	0.02	0.01	102	<0.01	5.13	5



Lab Nos.: 001-01-59709 - 004-01-59709

Date: 01-NOV-01

Received by: Randa Nees

Logged In by: Randa Nees

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s)
and associated sample custody information on receipt at the laboratory.

Chain of Custody Form
Completed & Signed

Yes Comments: _____

Chain of Custody Seal

No Comments: _____

Intact

N/A Comments: _____

Signature Match Chain of Custody vs. Seal

N/A Comments: _____

Temperature Received

4 C Comments: _____

Samples Received Within Holding Time

Yes Comments: _____

Samples Received in Proper Containers

Yes Comments: _____

Samples Received Properly Preserved(1)

Yes Comments: _____

(1) Acid preservation of samples for volatile organics is not evaluated on this form.

Any preservation problems encountered for these samples are noted on the analytical parameter report pages.

Record of client contact:

Who: _____

By: _____

Date/Time: _____

Method of Shipping: Hand Del.

Additional comments: _____



Received Date: 4/6/01 Cust. No.: B310190
Login Date: 2 Custody Seal: Yes/☒ No
Shipped by: Hand Del Intact: Yes/☐ No
Shipping Bill #: _____ Signature Match?: Yes/☐ No
Sample Temp: 4 °C If no - Reason: _____

BILLINGS, MT		CASPER, WY		GILLETTE, WY		HELENA, MT		RAPID CITY, SD	
1120 South 30916 (59107)	<i>Watts</i> 800-735-4489	P.O. Box 3258 (82602)	<i>Watts</i> 888-235-0515	1105 West First Street (82716)	<i>Voice</i> 307-686-7175	P.O. Box 5688 (59604)	<i>Watts</i> 877-472-0711	P.O. Box 24570 (57709)	<i>Watts</i> 888-672-1225
1120 South 27th (59101)	<i>Voice</i> 406-252-6325	2393 Salt Creek Highway (82601)	<i>Voice</i> 307-235-0515		<i>Fax</i> 307-682-4625	2704 Billings Ave. (59601)	<i>Voice/Fax</i> 406-442-0711	610 Farnwood (57701)	<i>Voice</i> 605-442-1225
	<i>Fax</i> 406-252-6069		<i>Fax</i> 307-234-1639						<i>Fax</i> 605-442-1392

[illegible]

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11
P.O. BOX 4817
HELENA, MONTANA 59604 (406)449-8627

Ground-Water Monitoring Field Report

Project: SANITATION, Inc.Well: SIMW-1Personnel: BSDate: 10/30/01

Time: _____

Conditions: _____

Static Water Level: 224 - 3" in bottom cap Total Depth: _____

Purge Method: _____ Volume Purged: _____

Volume	Temperature	Conductivity	pH
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Pumping Level: _____

Recovery:

h1 _____

h2 _____

time _____

Sample preservatives:

1000 ml, 6, no preservative _____

250 ml w/ H₂SO₄ _____250 ml w/ HNO₃ _____ filtered

250 ml w/ NaOH _____

500 ml, raw _____

40 ml, x2, w/ HCl _____

Comments:

SIP-2

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11
P.O. BOX 4817
HELENA, MONTANA 59604 (406)449-8627

Ground-Water Monitoring Field Report

Project: SANITATION, INC.Well: SMW-2Personnel: BSDate: 10/30/01Time: 1000

Conditions: _____

Static Water Level: 37.87Total Depth: 42.5Purge Method: BAILER - BAILED DRXVolume Purged: ~ 2 GAL

Volume Temperature

Conductivity

pH

1. ~ 214126.83

2. _____

3. _____

4. _____

Pumping Level: N/A

Recovery:

h1 Øh2 0.1time 141 sec @ 41'

Sample preservatives:

1000 ml, 6, no preservative N/A250 ml w/ H₂SO₄ ✓250 ml w/ HNO₃ ✓250 ml w/ NaOH ✓500 ml, raw ✓40 ml, x2, w/ HCl ✓

filtered

Comments:

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11
P.O. BOX 4817
HELENA, MONTANA 59604

Ground-Water Monitoring Field Report

Project: SANITATION INCWell: S1mw-3, 3DPersonnel: (BS)Date: 10/30/01Time: 1100

Conditions: _____

Static Water Level: 34.63 Total Depth: 39.25Purge Method: BAILER, BAILED P/RV Volume Purged: ~ 2 gal

Volume	Temperature	Conductivity	pH
1. <u>2+</u>	_____	<u>128</u>	<u>7.38</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Pumping Level: N/A

Recovery:

h1 Øh2 0.1time 13 @ 38'

Sample preservatives:

1000 ml, 6, no preservative N/A250 ml w/ H₂SO₄ X250 ml w/ HNO₃ _____

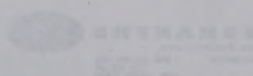
250 ml w/ NaOH _____

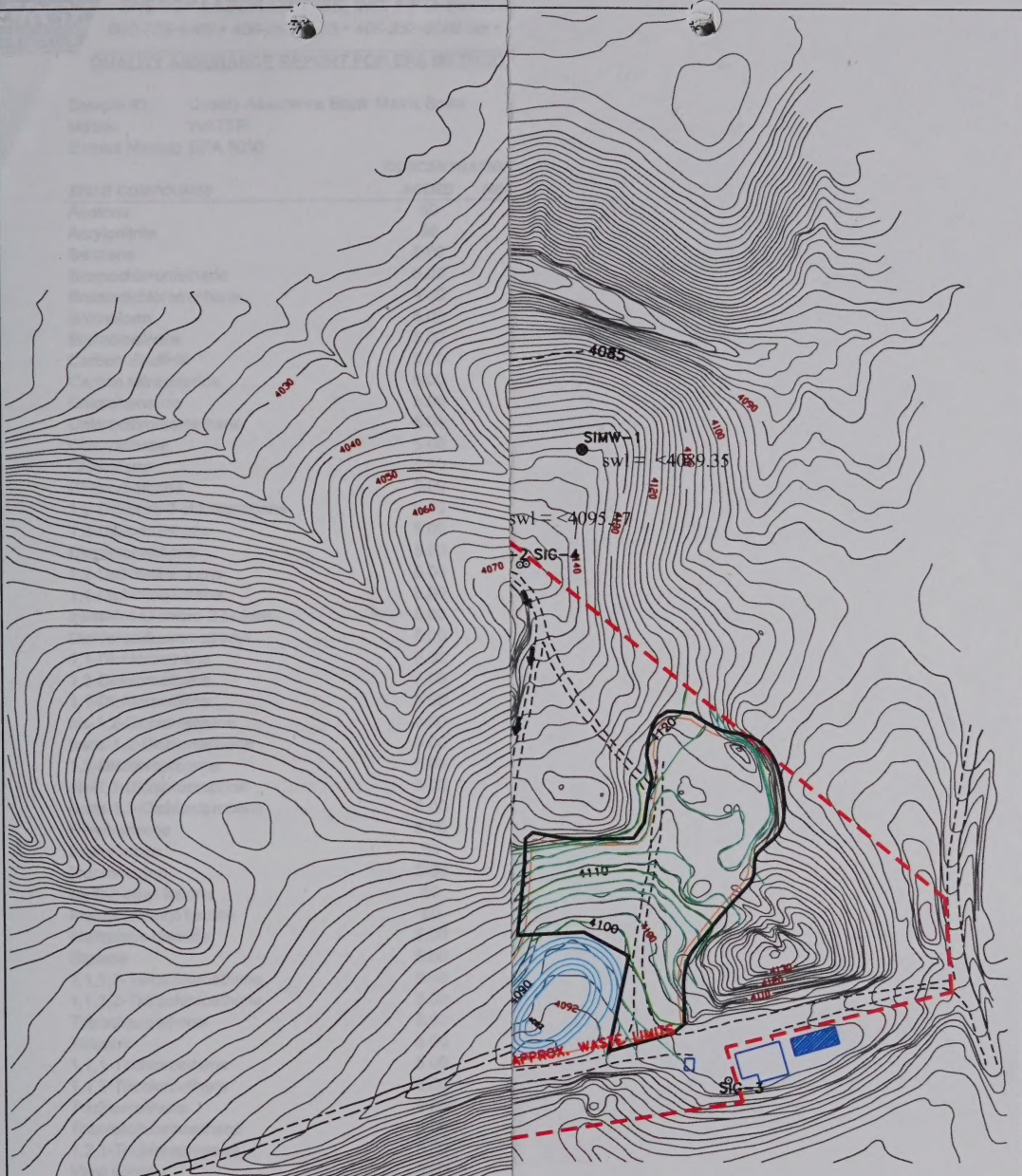
500 ml, raw _____

40 ml, x2, w/ HCl _____

filtered

Comments:

SIP-1 38.75SANITATION INC.
HELENA, MONTANA
Site Plan



DESIGN BY: J. LLOYD
 DRAWN BY: B. DAMSCHEN
 CHECKED BY: B. DAMSCHEN
 DATE: AUGUST, 1996

PROJECT TITLE																
SANITATION INC.																
Lewistown, Montana																
SHEET TITLE																
Site Plan																
 ENTRANCO WWW.ENTRANCO.COM 2030 11TH AVE., SUITE 11 P.O. BOX 4817 HELENA, MONTANA 59604																
JOB/ACAD NUMBER:	85-00058-10															
DRAWN BY:	B. LLOYD															
APPROVED BY:	B. DAMSCHEN															
CHECKED BY:	B. SIEGMUND															
DATE:	AUGUST, 1996															
<table border="1"> <tr> <td>△</td> <td>DESIGN</td> <td>BLS</td> </tr> <tr> <td>△</td> <td>DRAWING</td> <td>BLS</td> </tr> <tr> <td>△</td> <td>CHECKING</td> <td>BLS</td> </tr> <tr> <td>△</td> <td>DESIGN</td> <td>BLS</td> </tr> </table>	△	DESIGN	BLS	△	DRAWING	BLS	△	CHECKING	BLS	△	DESIGN	BLS	<table border="1"> <tr> <td>△</td> <td>DATE</td> <td>REVISION</td> </tr> </table>	△	DATE	REVISION
△	DESIGN	BLS														
△	DRAWING	BLS														
△	CHECKING	BLS														
△	DESIGN	BLS														
△	DATE	REVISION														
SHEET NO.																
1																
of 1																



LEGEND

- SI-1 test boring (plugged)
- △ SIG-1 landfill gas monitoring well
- SIP-1 piezometer, showing static water level elevation
(SWL=4100)
- ⊙ SIMW-1 ground-water monitoring well, showing static water level elevation.
(SWL=4100)

water table contour; interval two feet

topographic contour interval = 2 ft
groundwater measurements from 10/30/01



PROJECT TITLE			
SANITATION INC. Lewistown, Montana			
SHEET TITLE			
Site Plan			
ENTRANCO 2030 11TH AVE., SUITE 11 (409)448-0027 P.O. BOX 4817 LEBANON, INDIANA 46040			
JOB/ACAD NUMBER: 85-00058-10	1 2 3 4	BLS BLS BLS BLS	SHEET NO. 1 of 1
DRAWN BY: B. LLOYD			
APPROVED BY: B. DAMSCHEN			
CHECKED BY: B. SEGUND			
DATE: AUGUST, 1996			

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: REFERENCE STANDARD BLANK MATRIX SPIKE

Sample ID: Quality Assurance Blank Matrix Spike
 Matrix: WATER
 Extract Method EPA 5030

Date Reported: 12/11/01
 Date Analyzed: 11/12/01 11:55

SPIKE COMPOUNDS	CONCENTRATION(μg/L)		PERCENT	ACCEPTANCE
	ADDED	MEASURED	RECOVERY	
Acetone	50	51.8	104	53-135
Acrylonitrile	50	45.4	91	60-132
Benzene	5.00	4.36	87	77-122
Bromochloromethane	5.00	4.73	95	71-130
Bromodichloromethane	5.00	4.52	90	77-124
Bromoform	5.00	4.49	90	71-128
Bromomethane	5.00	4.98	100	46-148
Carbon disulfide	5.00	7.63	153	52-163
Carbon tetrachloride	5.00	5.25	105	71-128
Chlorobenzene	5.00	4.68	94	81-121
Chlorodibromomethane	5.00	4.74	95	77-122
Chloroethane	5.00	4.63	93	66-132
Chloroform	5.00	4.56	91	75-123
Chloromethane	5.00	4.39	88	47-140
1,2-Dibromo-3-chloropropane	5.00	4.89	98	68-134
1,2-Dibromoethane	5.00	4.59	92	77-126
Dibromomethane	5.00	4.41	88	78-125
1,2-Dichlorobenzene	5.00	4.73	95	77-128
1,4-Dichlorobenzene	5.00	4.60	92	80-123
trans-1,4-Dichloro-2-butene	5.00	6.59	132	64-157
Dichlorodifluoromethane	5.00	4.37	87	44-134
1,1-Dichloroethane	5.00	4.37	87	77-124
1,2-Dichloroethane	5.00	4.68	94	69-126
1,1-Dichloroethene	5.00	4.68	94	77-125
cis-1,2-Dichloroethene	5.00	4.48	90	73-125
trans-1,2-Dichloroethene	5.00	4.57	91	79-125
1,2-Dichloropropane	5.00	4.38	88	71-126
cis-1,3-Dichloropropene	5.00	4.52	90	77-142
trans-1,3-Dichloropropene	5.00	5.03	101	70-128
Ethylbenzene	5.00	4.58	92	80-123
2-Hexanone	50	47.7	95	66-131
Iodomethane	5.00	7.49	150	80-151
Methyl ethyl ketone	50	51.2	102	57-128
Methyl isobutyl ketone	50	48.2	96	67-129
Methylene chloride	5.00	4.83	97	75-127
Styrene	5.00	4.60	92	77-118
1,1,1,2-Tetrachloroethane	5.00	4.66	93	77-124
1,1,2,2-Tetrachloroethane	5.00	4.38	88	76-130
Tetrachloroethene	5.00	4.77	95	74-125
Toluene	5.00	4.58	92	78-125
1,1,1-Trichloroethane	5.00	4.78	96	73-126
1,1,2-Trichloroethane	5.00	4.58	92	76-129
Trichloroethene	5.00	4.76	95	78-125
Trichlorofluoromethane	5.00	4.90	98	52-132
1,2,3-Trichloropropane	5.00	4.40	88	77-134
Vinyl acetate	5.00	6.36	127	43-159
Vinyl chloride	5.00	4.69	94	66-132
m+p-Xylenes	10	9.16	92	78-126
o-Xylene	5.00	4.74	95	78-127

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(μg/L)		PERCENT	ACCEPTANCE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	10	100	74-121
1,2-Dichloroethane d4	10	9.77	98	72-116
Toluene d8	10	9.98	100	85-115
p-Bromofluorobenzene	10	9.68	97	87-124

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A.i/va111201.b/nov120301003.d



ENTRANCO

Transportation
•
Construction
Management
•
Development
•
Surveying
•
Environmental
Resources
•
Ports/Airports
•
Planning
•
Water/
Wastewater

October 17, 2001

Pat Potts

Montana Department of Environmental Quality

P.O. Box 200901

Helena, MT 59620-0901

Dear Ms. Potts:

Enclosed please find the results of the Spring, 2001 ground-water monitoring at the closed Sanitation, Inc. landfill in Lewistown, Montana. Sampling was undertaken on July 6, 2001.

Ground-Water Flow

The water levels were down in all of the installations at the facility when compared to the previously-obtained readings, with the exception of piezometer SIP-1, in which the water level was 0.04 feet higher. Monitoring well SIMW-1 and piezometer SIP-2 had water only in the base plugs, which means that the zone that usually supplies water to the wells was not saturated. The other wells recovered after purging at rates similar to those previously observed, so it is concluded that no significant changes have occurred in the wells or the saturated zone.

The hydraulic gradient (I) near SIMW-1 and -2 could not be properly measured because there was no water level available from SIMW-1 or SIP 2. The gradient near SIMW-3 and SIP-1 is approximately 0.04. Using the previously-accepted estimated porosity (n_e) of 0.35, the seepage velocity (V_s) can be calculated for the area around each of the wells. The hydraulic conductivity (K) for the area around SIMW-3 was measured at 3.2×10^{-3} cm/sec (9.2 ft/day). Using

$$V_s = KI/n_e$$

the seepage velocity for the area around SIMW-1 can be calculated as 3.66×10^{-4} cm/day (1.04ft/day).

Ground-Water Quality

The water level was too in either monitoring well SIMW-1 or piezometer SIP-2 to collect samples. Normal sampling was undertaken in the remaining monitoring wells. VOCs were not detected in the sample from monitoring well

FERGUS Co
Sanitation Inc # 291
grd wtr mon. (ANALY)

RECEIVED

OCT 18 2001

MONTANA
DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

PO Box 4817
2030 11th Avenue
Suite 11
Helena, Montana
59604
Telephone 406 449 8627
Fax 406 449 8631



ENTRANCO

Transportation
•
Construction
Management
•
Development
•
Surveying
•
Environmental
Resources
•
Ports/Airports
•
Planning
•
Water/
Wastewater

SIMW-2. Dichlorodifluoromethane was found in the sample and the duplicate from well SIMW-3, and 1,1,1-trichloroethane was found in the duplicate. All reported values fell below the practical quantitation limit. Neither of these constituted statistical or human health standard exceedences.

Intra-well prediction analysis revealed no statistical exceedences for any constituent in the Table 1 list. Nitrate, while still present in all samples, failed trigger statistical exceedences and fell below the human health standard of 10 mg/l.

This facility is currently undergoing changes in the sampling regime, and additional work has been proposed at the facility. That work plan is still under review by your department and we shall proceed with future sampling based upon the outcome of that review and/or further discussions. If you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

ENTRANCO, INC.

Bruce L. Siegmund
Senior Hydrogeologist

CC: William Spoja
enclosures

LABORATORY ANALYSIS REPORT

 Sanitation Inc.
 Bill Spoja
 PO Box 882
 Lewistown, MT 59457

 Project ID: SANITATION, INC. LANDFILL, LEWISTOWN, MT
 Sample ID: SIMW-2
 Laboratory ID: 01-55652-1
 Sample Matrix: Water
 Sample Date: 06-Jul-01 1030
 Received at lab: 10-Jul-01
 Reported: 18-Jul-01

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed
				Limit	Limit		
Chloride	67	mg/l		1		EPA 300.0	13-Jul-01 1617 RLH
Sulfate	214	mg/l		1		EPA 300.0	13-Jul-01 1617 RLH
Specific Conductance @ 25 C	1140	umhos/cm		1		SM 2510B	10-Jul-01 1506 AK
pH	7.0	s.u.		0.1		EPA 150.1	10-Jul-01 1506 AK
Chemical Oxygen Demand	11	mg/l		1		EPA 410.4	18-Jul-01 0830 BS
Nitrogen, Nitrate plus Nitrite	1.05	mg/l		0.05		EPA 353.2	16-Jul-01 1733 BS
Cyanide, Total	<0.005	mg/l	J	0.005		EPA 335.3	10-Jul-01 1238 ND
Antimony, Dissolved	<0.05	mg/l	U	0.05		EPA 200.8	13-Jul-01 2302 CR/JW
Arsenic, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-01 2302 CR/JW
Barium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	13-Jul-01 0026 RLH
Beryllium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	13-Jul-01 0026 RLH
Cadmium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	13-Jul-01 2302 CR/JW
Chromium, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0026 RLH
Cobalt, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0026 RLH
Copper, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0026 RLH
Iron, Dissolved	<0.03	mg/l	U	0.03		EPA 200.7	13-Jul-01 0026 RLH
Lead, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	13-Jul-01 2302 CR/JW
Mercury, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	13-Jul-01 2302 CR/JW
Nickel, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0026 RLH
Selenium, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-01 2302 CR/JW
Silver, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-01 2302 CR/JW
Thallium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.8	13-Jul-01 2302 CR/JW
Vanadium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	13-Jul-01 0026 RLH
Zinc, Dissolved	0.01	mg/l		0.01		EPA 200.7	13-Jul-01 0026 RLH

J=Present, but less than the practical quantitation limit.

U=Indicates parameter was analyzed for but not detected.

ANALYST	CONCENTRATION (mg/L)		PERCENT	ACCEPTANCE
	ASAP	MEAN		
1.000000000	10	10	100	10-101
1.000000000	10	10.0	100	10-110
1.000000000	10	10.1	101	10-115
1.000000000	10	10.1	101	10-120

REPORT COMMENTS: None

Date: 18-Jul-01 Analyzing: [Signature]

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **SIMW-2**
 Project Info: **SANITATION, INC. LANDFILL, LEWISTOWN, MT**
 Lab ID: **001-01-55652**
 Matrix: **WATER; pH= < 2**

Date Reported: **07/17/01**
 Date Sampled: **07/06/01 10:30**
 Date Received: **07/10/01**
 Date Analyzed: **07/12/01 15:55**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	10	100	74-121
1,2-Dichloroethane d4	10	10.6	106	72-116
Toluene d8	10	10.1	101	85-115
p-Bromofluorobenzene	10	10.1	101	87-124

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

chem5971A\jva071201.b\j121201012.d

LABORATORY ANALYSIS REPORT

Sanitation Inc.	Project ID:	SANITATION, INC. LANDFILL, LEWISTOWN, MT
Bill Spoja	Sample ID:	SIMW-3
PO Box 882	Laboratory ID:	01-55652-2
Lewistown, MT 59457	Sample Matrix:	Water
	Sample Date:	06-Jul-01 1115
	Received at lab:	10-Jul-01
	Reported:	18-Jul-01

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed	
				Limit	Limit			
Chloride	36	mg/l		1		EPA 300.0	13-Jul-01 1628	RLH
Sulfate	135	mg/l		1		EPA 300.0	13-Jul-01 1628	RLH
Specific Conductance @ 25 C	870	umhos/cm		1		SM 2510B	10-Jul-01 1507	AK
pH	7.5	s.u.		0.1		EPA 150.1	10-Jul-01 1507	AK
Chemical Oxygen Demand	9	mg/l		1		EPA 410.4	18-Jul-01 0830	BS
Nitrogen, Nitrate plus Nitrite	8.79	mg/l		0.05		EPA 353.2	16-Jul-01 1826	BS
Cyanide, Total	<0.005	mg/l	J	0.005		EPA 335.3	10-Jul-01 1254	ND
Antimony, Dissolved	<0.05	mg/l	U	0.05		EPA 200.7	13-Jul-01 0029	RLH
Arsenic, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	13-Jul-01 2311	CR/JW
Barium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	13-Jul-01 0029	RLH
Beryllium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	13-Jul-01 0029	RLH
Cadmium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.7	13-Jul-01 0029	RLH
Chromium, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0029	RLH
Cobalt, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0029	RLH
Copper, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0029	RLH
Iron, Dissolved	<0.03	mg/l	U	0.03		EPA 200.7	13-Jul-01 0029	RLH
Lead, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0029	RLH
Mercury, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	13-Jul-01 2311	CR/JW
Nickel, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0029	RLH
Selenium, Dissolved	0.021	mg/l		0.005		EPA 200.8	13-Jul-01 2311	CR/JW
Silver, Dissolved	<0.005	mg/l	U	0.005		EPA 200.7	13-Jul-01 0029	RLH
Thallium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.8	13-Jul-01 2311	CR/JW
Vanadium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.7	13-Jul-01 0029	RLH
Zinc, Dissolved	<0.01	mg/l	U	0.01		EPA 200.7	13-Jul-01 0029	RLH

J=Present, but less than the practical quantitation limit.

U=Indicates parameter was analyzed for but not detected.

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **SIMW-3**
 Project Info: **SANITATION, INC. LANDFILL, LEWISTOWN, MT**
 Lab ID: **002-01-55652**
 Matrix: **WATER; pH= < 2**

Date Reported: 07/17/01
 Date Sampled: 07/06/01 11:15
 Date Received: 07/10/01
 Date Analyzed: 07/12/01 16:33

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
67-84-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.34)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

Runtime Quality Assurance Report				ACCEPTANCE RANGE
SYSTEM MONITORING COMPOUNDS	ADDED	MEASURED	PERCENT RECOVERY	
Dibromofluoromethane	10	10.4	104	74-121
1,2-Dichloroethane d4	10	10.8	108	72-116
Toluene d8	10	10.1	101	85-115
p-Bromofluorobenzene	10	9.89	99	87-124

REPORT COMMENTS: None

Analyst: Q

Reviewing Supervisor: [Signature]

chem5971A.i\va071201.b\j4121301013.d

LABORATORY ANALYSIS REPORT

Sanitation Inc.	Project ID:	SANITATION, INC. LANDFILL, LEWISTOWN, MT
Bill Spoja	Sample ID:	SIMW-3D
PO Box 882	Laboratory ID:	01-55652-3
Lewistown, MT 59457	Sample Matrix:	Water
	Sample Date:	06-Jul-01 1115
	Received at lab:	10-Jul-01
	Reported:	18-Jul-01

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed
				Limit	Limit		
Chloride	36 mg/l			1		EPA 300.0	13-Jul-01 1652 RLH
Sulfate	134 mg/l			1		EPA 300.0	13-Jul-01 1652 RLH
Specific Conductance @ 25 C	864 umhos/cm			1		SM 2510B	10-Jul-01 1508 AK
pH	7.4 s.u.			0.1		EPA 150.1	10-Jul-01 1508 AK
Chemical Oxygen Demand	7 mg/l			1		EPA 410.4	18-Jul-01 0830 BS
Nitrogen, Nitrate plus Nitrite	8.77 mg/l			0.05		EPA 353.2	16-Jul-01 1827 BS
Cyanide, Total	<0.005 mg/l	J		0.005		EPA 335.3	10-Jul-01 1311 ND
Antimony, Dissolved	<0.05 mg/l	U		0.05		EPA 200.7	13-Jul-01 0032 RLH
Arsenic, Dissolved	<0.005 mg/l	U		0.005		EPA 200.8	13-Jul-01 2331 CR/JW
Barium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.7	13-Jul-01 0032 RLH
Beryllium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.7	13-Jul-01 0032 RLH
Cadmium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.7	13-Jul-01 0032 RLH
Chromium, Dissolved	<0.01 mg/l	U		0.01		EPA 200.7	13-Jul-01 0032 RLH
Cobalt, Dissolved	<0.01 mg/l	U		0.01		EPA 200.7	13-Jul-01 0032 RLH
Copper, Dissolved	<0.01 mg/l	U		0.01		EPA 200.7	13-Jul-01 0032 RLH
Iron, Dissolved	0.03 mg/l			0.03		EPA 200.7	13-Jul-01 0032 RLH
Lead, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	13-Jul-01 2331 CR/JW
Mercury, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	13-Jul-01 2326 CR/JW
Nickel, Dissolved	<0.01 mg/l	U		0.01		EPA 200.7	13-Jul-01 0032 RLH
Selenium, Dissolved	0.024 mg/l			0.005		EPA 200.8	13-Jul-01 2331 CR/JW
Silver, Dissolved	<0.005 mg/l	U		0.005		EPA 200.7	13-Jul-01 0032 RLH
Thallium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	13-Jul-01 2331 CR/JW
Vanadium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.7	13-Jul-01 0032 RLH
Zinc, Dissolved	<0.01 mg/l	U		0.01		EPA 200.7	13-Jul-01 0032 RLH

J=Present, but less than the practical quantitation limit.
U=Indicates parameter was analyzed for but not detected.

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **SIMW-3D**
 Project Info: **SANITATION, INC. LANDFILL, LEWISTOWN, MT**
 Lab ID: **003-01-55652**
 Matrix: **WATER; pH= < 2**

Date Reported: **07/17/01**
 Date Sampled: **07/06/01 11:15**
 Date Received: **07/10/01**
 Date Analyzed: **07/12/01 17:11**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.36)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
74-55-6	1,1,1-Trichloroethane	(0.20)(J)	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

Runtime Quality Assurance Report				
SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE
	ADDED	MEASURED	RECOVERY	RANGE
Dibromofluoromethane	10	10.3	103	74–121
1,2-Dichloroethane d4	10	10.8	108	72–116
Toluene d8	10	10.1	101	85–115
p-Bromofluorobenzene	10	9.96	100	87–124

REPORT COMMENTS: None

Analyst: SD

Reviewing Supervisor: TEH

lchem5971A.II\va071201.b\jdl121401014.d

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **TRIP BLANK**
 Project Info: **SANITATION, INC. LANDFILL, LEWISTOWN, MT**
 Lab ID: **004-01-55652**
 Matrix: **WATER; pH= < 2**

Date Reported: **07/17/01**
 Date Sampled:
 Date Received: **07/10/01**
 Date Analyzed: **07/13/01 14:22**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		($\mu\text{g/L}$)	QUANTITATION($\mu\text{g/L}$)
67-64-1	Acetone	62	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	1.9	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION($\mu\text{g/L}$)		PERCENT	ACCEPTANCE
	ADDED	MEASURED	RECOVERY	RANGE
Dibromofluoromethane	10	10.2	102	74-121
1,2-Dichloroethane d4	10	10.6	106	72-116
Toluene d8	10	10	100	85-115
p-Bromofluorobenzene	10	9.61	96	87-124

REPORT COMMENTS: None

Analyst: S

Reviewing Supervisor: [Signature]

/chem/5971A.I/vs071301.b/1130701007.d

Lab Nos. 01-55652-1-3

QUALITY ASSURANCE DATA PACKAGE

This report is a summary of the results of the quality assurance tests performed with the sample analyses. They are performed to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate and precise results. The date the quality assurance sample was analyzed is consistent with Energy Laboratories' Quality Assurance Plan.

Constituents	Duplicate Analysis		Spiked Analysis	Blank Analysis	Calibration Sample Analysis	True Value, Acceptable
	--- mg/l (ppm) ---		%			+/- 10%
	Original	Duplicate	Recovery	mg/l (ppm)	mg/l (ppm)	mg/l (ppm)
Chloride	36	36	83	<1	25	25
Sulfate	135	134	87	<1	100	100
Specific Conductance, μ mhos/cm	54	45	NA	<1	NA	NA
pH, s.u.	7.3	7.3	NA	NA	NA	NA
Chemical Oxygen Demand	94	94	89	<1	172	187
Nitrogen, Nitrate plus Nitrite	14.3	14.3	94	<0.05	5.39	5.42
Cyanide, Total	0.052	0.052	105	<0.005	0.120	0.126
Antimony, Dissolved	<0.05	<0.05	102	<0.05	4.79	5
Arsenic, Dissolved	<0.005	<0.005	91	<0.005	0.047	0.05
Barium, Dissolved	0.2	0.2	108	<0.1	5.0	5
Beryllium, Dissolved	<0.001	<0.001	106	<0.001	1.02	1
Cadmium, Dissolved	<0.001	<0.001	99	<0.001	0.936	1
Chromium, Dissolved	<0.01	<0.01	101	<0.01	4.91	5
Cobalt, Dissolved	<0.01	<0.01	98	<0.01	4.77	5
Copper, Dissolved	<0.01	<0.01	101	<0.01	4.88	5
Iron, Dissolved	<0.03	<0.03	100	<0.03	4.87	5
Lead, Dissolved	0.02	0.02	97	<0.01	4.76	5
Mercury, Dissolved	<0.001	<0.001	106	<0.001	0.005	0.005
Nickel, Dissolved	<0.01	<0.01	99	<0.01	4.81	5
Selenium, Dissolved	<0.005	<0.005	103	<0.005	0.047	0.05
Silver, Dissolved	<0.005	<0.005	98	<0.005	0.183	0.2
Thallium, Dissolved	<0.1	<0.1	92	<0.1	0.047	0.05
Vanadium, Dissolved	<0.1	<0.1	101	<0.1	4.9	5
Zinc, Dissolved	0.02	0.01	98	<0.01	4.68	5

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: METHOD BLANK

Sample ID: Quality Assurance Method Blank
 Matrix: WATER
 Extract Method: EPA 5030

Date Reported: 07/17/01
 Date Analyzed: 07/12/01 10:57

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

SYSTEM MONITORING COMPOUNDS	Runtime Quality Assurance Report			ACCEPTANCE RANGE
	ADDED	MEASURED	PERCENT RECOVERY	
Dibromofluoromethane	10	9.84	98	74-121
1,2-Dichloroethane d4	10	10.4	104	72-116
Toluene d8	10	10.2	102	85-115
p-Bromofluorobenzene	10	9.97	100	87-124

REPORT COMMENTS: None

Analyst: S Reviewing Supervisor: CHP

/chem/5971A.I/va071201.bj/1120401004.d

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: METHOD BLANK

Sample ID: Quality Assurance Method Blank
Matrix: WATER
Extract Method: EPA 5030

Date Reported: 07/17/01
Date Analyzed: 07/13/01 12:32

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	10.3	103	74-121
1,2-Dichloroethane d4	10	10.6	106	72-116
Toluene d8	10	9.95	99	85-115
p-Bromofluorobenzene	10	9.90	99	87-124

REPORT COMMENTS: None

Analyst:  Reviewing Supervisor: 

/chem/5971A/Jva071301.bj/130501005.d



QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: REFERENCE STANDARD BLANK MATRIX SPIKE

Sample ID: Quality Assurance Blank Matrix Spike
Matrix: WATER
Extract Method EPA 5030

Date Reported: 07/17/01
Date Analyzed: 07/11/01 11:07

SPIKE COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Acetone	50	49.8	100	53-135
Acrylonitrile	50	44	88	60-132
Benzene	5.00	4.40	88	77-122
Bromochloromethane	5.00	4.40	88	71-130
Bromodichloromethane	5.00	4.63	93	77-124
Bromoform	5.00	4.46	89	71-128
Bromomethane	5.00	5.30	106	46-148
Carbon disulfide	5.00	4.41	88	52-163
Carbon tetrachloride	5.00	4.51	90	71-128
Chlorobenzene	5.00	4.56	91	81-121
Chlorodibromomethane	5.00	4.64	93	77-122
Chloroethane	5.00	4.38	88	66-132
Chloroform	5.00	4.54	91	75-123
Chloromethane	5.00	4.91	98	47-140
1,2-Dibromo-3-chloropropane	5.00	4.53	91	68-134
1,2-Dibromoethane	5.00	4.63	93	77-126
Dibromomethane	5.00	4.71	94	78-125
1,2-Dichlorobenzene	5.00	4.65	93	77-128
1,4-Dichlorobenzene	5.00	4.53	91	80-123
trans-1,4-Dichloro-2-butene	5.00	6.45	129	64-157
Dichlorodifluoromethane	5.00	4.24	85	44-134
1,1-Dichloroethane	5.00	4.22	84	77-124
1,2-Dichloroethane	5.00	4.51	90	69-126
1,1-Dichloroethene	5.00	4.38	88	77-125
cis-1,2-Dichloroethene	5.00	4.49	90	73-125
trans-1,2-Dichloroethene	5.00	4.46	89	79-125
1,2-Dichloropropane	5.00	4.52	90	71-126
cis-1,3-Dichloropropene	5.00	4.68	94	77-142
trans-1,3-Dichloropropene	5.00	5.00	100	70-128
Ethylbenzene	5.00	4.57	91	80-123
2-Hexanone	50	49.3	99	66-131
Iodomethane	5.00	5.32	106	80-151
Methyl ethyl ketone	50	52.5	105	57-128
Methyl isobutyl ketone	50	49.9	100	67-129
Methylene chloride	5.00	4.71	94	75-127
Styrene	5.00	4.56	91	77-118
1,1,1,2-Tetrachloroethane	5.00	4.74	95	77-124
1,1,2,2-Tetrachloroethane	5.00	4.43	89	76-130
Tetrachloroethene	5.00	4.59	92	74-125
Toluene	5.00	4.70	94	78-125
1,1,1-Trichloroethane	5.00	4.54	91	73-126
1,1,2-Trichloroethane	5.00	4.50	90	76-129
Trichloroethene	5.00	4.83	97	78-125
Trichlorofluoromethane	5.00	4.57	91	52-132
1,2,3-Trichloropropane	5.00	4.59	92	77-134
Vinyl acetate	5.00	5.08	102	43-159
Vinyl chloride	5.00	4.90	98	66-132
m+p-Xylenes	10	9.34	93	78-126
o-Xylene	5.00	4.66	93	78-127

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	10.4	104	74-121
1,2-Dichloroethane d4	10	10.1	101	72-116
Toluene d8	10	10.2	102	85-115
p-Bromofluorobenzene	10	10	100	87-124

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A.lva071101.bj0110301003.d



Lab Nos.: 001-01-55652 - 004-01-55652

Date: 10-JUL-01

Received by: Randa Nees

Logged In by: Randa Nees

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s)
and associated sample custody information on receipt at the laboratory.

Chain of Custody Form

Completed & Signed

Yes Comments: _____

Chain of Custody Seal

No Comments: _____

Intact

N/A Comments: _____

Signature Match Chain of Custody vs. Seal

N/A Comments: _____

Temperature Received

2.7 C Comments: _____

Samples Received Within Holding Time

Yes Comments: _____

Samples Received in Proper Containers

Yes Comments: _____

Samples Received Properly Preserved(1)

Yes Comments: _____

(1) Acid preservation of samples for volatile organics is not evaluated on this form.

Any preservation problems encountered for these samples are noted on the analytical parameter report pages.

Record of client contact:

Who: _____

By: _____

Date/Time: _____

Method of Shipping: UPS Ground

Additional comments: _____

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Chloride

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 67

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	55
	6/10/96	47
	10/22/96	62
	6/3/97	63
	11/4/97	58
	6/16/98	56
	6/16/98	59
	10/6/98	56
	10/6/98	51
	6/15/99	3
	10/6/99	50
	6/27/00	59
	10/17/00	61
	10/17/00	62
	7/6/01	67

Date	Samples	Mean	Impacted
7/6/01	1	67	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Chloride

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 36

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	34
	6/10/96	30
	10/22/96	34
	6/3/97	27
	11/4/97	30
	11/4/97	30
	6/16/98	23
	10/6/98	25
	6/15/99	25
	10/6/99	27
	6/27/00	30
	10/17/00	32
	7/6/01	36
	7/6/01	36

Date	Samples	Mean	Impacted
7/6/01	2	36	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Sulfate

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 224

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	224
	6/10/96	195
	10/22/96	214
	6/3/97	202
	11/4/97	211
	6/16/98	201
	6/16/98	202
	10/6/98	203
	10/6/98	191
	6/15/99	177
	10/6/99	193
	6/27/00	199
	10/17/00	201
	10/17/00	199
	7/6/01	214

Date	Samples	Mean	Impacted
7/6/01	1	214	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Sulfate

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 140

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	140
	6/10/96	139
	10/22/96	133
	6/3/97	134
	11/4/97	131
	11/4/97	131
	6/16/98	129
	10/6/98	128
	6/15/99	121
	10/6/99	124
	6/27/00	135
	10/17/00	139
	7/6/01	135
	7/6/01	134

Date	Samples	Mean	Impacted
7/6/01	2	134.5	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Specific Conductivity

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1480

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	1480
	6/10/96	1180
	10/22/96	1180
	6/3/97	1040
	11/4/97	1110
	6/16/98	1150
	6/16/98	1150
	10/6/98	1140
	10/6/98	1130
	6/15/99	1170
	10/6/99	1100
	6/27/00	1100
	10/17/00	1130
	10/17/00	1120
	7/6/01	1140

Date	Samples	Mean	Impacted
7/6/01	1	1140	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Specific Conductivity

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 893

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	893
	6/10/96	750
	10/22/96	706
	6/3/97	683
	11/4/97	767
	11/4/97	767
	6/16/98	739
	10/6/98	731
	6/15/99	707
	10/6/99	744
	6/27/00	797
	10/17/00	808
	7/6/01	870
	7/6/01	864

Date	Samples	Mean	Impacted
7/6/01	2	867	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Nitrate,Nitrite

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 4.18

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	3.78
	6/10/96	4.18
	10/22/96	2.6
	6/3/97	2.11
	11/4/97	3.95
	6/16/98	2.32
	6/16/98	2.37
	10/6/98	3.97
	10/6/98	2.83
	6/15/99	3.26
	10/6/99	2.46
	6/27/00	2.57
	10/17/00	1.93
	10/17/00	1.9
	7/6/01	1.05

Date	Samples	Mean	Impacted
7/6/01	1	1.05	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Nitrate,Nitrite

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 935

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	8.96
	6/10/96	9.25
	10/22/96	9.09
	6/3/97	9.08
	11/4/97	935
	11/4/97	9.2
	6/16/98	12.2
	10/6/98	11
	6/15/99	11.7
	10/6/99	11.5
	6/27/00	10.1
	10/17/00	9.76
	7/6/01	8.79
	7/6/01	8.77

Date	Samples	Mean	Impacted
7/6/01	2	8.78	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Dichlorodifluoromethane

Total Percent Non-Detects = 28%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	ND<1 j
	6/10/96	0.18 j
	10/22/96	0.23 j
	6/3/97	ND<0.001
	6/3/97	ND<1
	11/4/97	0.26 j
	6/16/98	ND<1
	6/16/98	ND<1
	10/6/98	0.28
	10/6/98	0.28
	6/15/99	0.51
	10/6/99	ND<1
	6/27/00	0.32
	10/17/00	0.27
	10/17/00	0.27 j
	7/6/01	ND<1

Date	Samples	Mean	Impacted
7/6/01	1	1	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Dichlorodifluoromethane

Total Percent Non-Detects = 28%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1.2

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	0.2 j
	6/10/96	ND<1
	10/22/96	ND<1
	6/3/97	ND<1
	11/4/97	ND<1
	11/4/97	ND<1
	6/16/98	1.2
	10/6/98	0.45
	6/15/99	0.55
	10/6/99	ND<1
	10/6/99	ND<1
	6/27/00	0.32
	10/17/00	0.3
	7/6/01	0.34 j
	7/6/01	0.36 j

Date	Samples	Mean	Impacted
7/6/01	2	0.35	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: 1,1,1-Trichloroethane

Total Percent Non-Detects = 32%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1.2

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	ND<1 j
	6/10/96	0.18 j
	10/22/96	ND<1
	6/3/97	ND<1
	6/3/97	ND<1
	11/4/97	0.42 j
	6/16/98	ND<1
	6/16/98	ND<1
	10/6/98	0.39
	10/6/98	0.36
	6/15/99	1.2
	10/6/99	ND<1
	6/27/00	0.42
	10/17/00	0.41 j
	10/17/00	0.44 j
	7/6/01	ND<1

Date	Samples	Mean	Impacted
7/6/01	1	1	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: 1,1,1-Trichloroethane

Total Percent Non-Detects = 48%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	0.54 j
	6/10/96	ND<1
	10/22/96	ND<1
	6/3/97	ND<1
	11/4/97	ND<1
	11/4/97	ND<1
	6/16/98	ND<1
	10/6/98	ND<1
	6/15/99	0.34
	10/6/99	ND<1
	10/6/99	ND<1
	6/27/00	ND<1
	10/17/00	ND<1
	7/6/01	ND<1
	7/6/01	0.2 j

Date	Samples	Mean	Impacted
7/6/01	2	0.6	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Trichlorofluoromethane

Total Percent Non-Detects = 44%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1.4

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	ND<1
	6/10/96	0.16 j
	10/22/96	0.15 j
	6/3/97	ND<1
	6/3/97	ND<1
	11/4/97	0.2 j
	6/16/98	1.4
	6/16/98	ND<1
	10/6/98	ND<1
	10/6/98	ND<1
	6/15/99	0.48 .
	10/6/99	ND<1
	6/27/00	ND<1
	10/17/00	ND<1
	10/17/00	ND<1
	7/6/01	ND<1

Date	Samples	Mean	Impacted
7/6/01	1	1	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Trichlorofluoromethane

Total Percent Non-Detects = 44%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1.4

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	0.17 j
	6/10/96	ND<1
	10/22/96	ND<1
	6/3/97	ND<1
	11/4/97	ND<1
	11/4/97	ND<1
	6/16/98	1.4
	10/6/98	0.22
	6/15/99	0.29
	10/6/99	ND<1
	10/6/99	ND<1
	6/27/00	ND<1
	10/17/00	ND<1
	7/6/01	ND<1
	7/6/01	ND<1

Date	Samples	Mean	Impacted
7/6/01	2	1	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-2

Parameter: 1,1-Dichloroethane

Total Percent Non-Detects = 60%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples	Date	Result
	8/16/95	ND<1 j
	6/10/96	ND<1
	10/22/96	ND<1
	6/3/97	ND<1
	6/3/97	ND<1
	11/4/97	ND<1
	6/16/98	ND<1
	6/16/98	ND<1
	10/6/98	ND<1
	10/6/98	ND<1
	6/15/99	0.22
	10/6/99	ND<1
	6/27/00	ND<1
	10/17/00	ND<1
	10/17/00	ND<1
	7/6/01	ND<1

Date	Samples	Mean	Impacted
7/6/01	1	1	FALSE

Non-Parametric Prediction Interval**Intra-Well Comparison for SIMW-3****Parameter: 1,1-Dichloroethane**

Total Percent Non-Detects = 56%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 25

Maximum Baseline Concentration = 1

Confidence Level = 96.2%

False Positive Rate = 3.8%

Baseline Samples

Date	Result
8/16/95	0.21 j
6/10/96	ND<1
10/22/96	ND<1
6/3/97	ND<1
11/4/97	ND<1
11/4/97	ND<1
6/16/98	ND<1
10/6/98	ND<1
6/15/99	ND<1
10/6/99	ND<1
10/6/99	ND<1
6/27/00	ND<1
10/17/00	ND<1
7/6/01	ND<1
7/6/01	ND<1

Date	Samples	Mean	Impacted
7/6/01	2	1	FALSE

Sample preservation:

1000 ml, 6, no preservative

250 ml w/ H₂SO₄250 ml w/ HNO₃

250 ml w/ NaOH

500 ml, raw

40 ml, 12, w/ H₂O**Comments:**

SIP-2 = 38.17

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11 (406)449-8627
P.O. BOX 4817
HELENA, MONTANA 59604

Ground-Water Monitoring Field Report

Project: SANITATION, INCWell: SIMW-1Personnel: BSDate: 7/6/20/01Time: 1030

Conditions: _____

Static Water Level: 48.55Total Depth: ~ 48.75Purge Method: 2.5Volume Purged: 2.5

Volume	Temperature	Conductivity	pH
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Pumping Level: 5.150

Recovery:

h1 _____

h2 _____

time _____

Sample preservatives:

1000 ml, 6, no preservative _____

250 ml w/ H₂SO₄ _____250 ml w/ HNO₃ _____ filtered

250 ml w/ NaOH _____

500 ml, raw _____

40 ml, x2, w/ HCl _____

INSUFFICIENT
WATER TO
COLLECT

Comments:

56.
SIP-2 = 58.17

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11
P.O. BOX 4817
HELENA, MONTANA 59604 (406)449-8627

Ground-Water Monitoring Field Report

Project: SANITATION INC.Well: Simw-2Personnel: (SS)Date: 7/20/01Time: 1030

Conditions: _____

Static Water Level: 37.89Total Depth: 42.5Purge Method: BAILOUTVolume Purged: 2.5

Volume	Temperature	Conductivity	pH
1. _____	_____	<u>1360</u>	<u>13.60</u> 7.12
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Pumping Level: BAILOUT DRY

Recovery:

h1 _____

h2 _____

time _____

Sample preservatives:

1000 ml, 6, no preservative _____

250 ml w/ H₂SO₄ _____250 ml w/ HNO₃ _____ filtered

250 ml w/ NaOH _____

500 ml, raw _____

40 ml, x2, w/ HCl _____

Comments:

SIP 1 = 38.47

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11
P.O. BOX 4817
HELENA, MONTANA 59604

(406)449-8627

Ground-Water Monitoring Field Report

Project: SANITATION INC.Well: Simw-3

Personnel: _____

Date: _____

Time: _____

Conditions: _____

Static Water Level: 34.40Total Depth: 39

Purge Method: _____

Volume Purged: _____

Volume	Temperature	Conductivity	pH
1. _____	_____	<u>1030</u>	<u>6.72</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

Pumping Level: _____

Recovery:

h1 _____

h2 0.01time 9

Sample preservatives:

1000 ml, 6, no preservative _____

250 ml w/ H₂SO₄ _____250 ml w/ HNO₃ _____

filtered

250 ml w/ NaOH _____

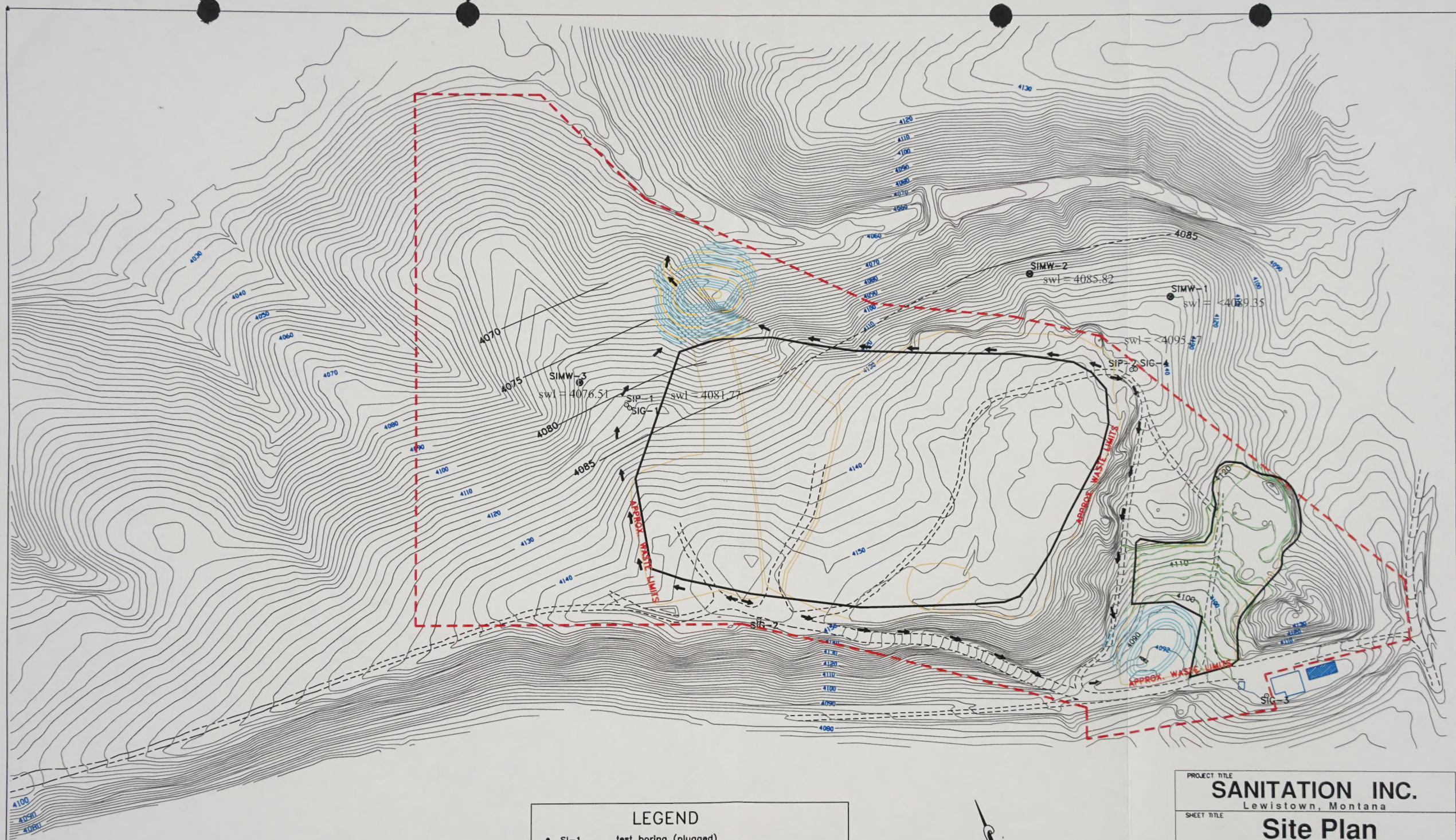
500 ml, raw _____

40 ml, x2, w/ HCl _____

Comments:

SIP 1 = 38.47





LEGEND

- SI-1 test boring (plugged)
- △ SIG-1 landfill gas monitoring well
- SIP-1 piezometer, showing static water level elevation (SWL=4100)
- ⊙ SIMW-1 ground-water monitoring well, showing static water level elevation (SWL=4100)
- water table contour; interval two feet

topographic contour interval = 2 ft
groundwater measurements from 10/7/20/01



PROJECT TITLE			
SANITATION, INC. Lewistown, Montana			
SHEET TITLE			
Site Plan			
 ENTRANCO 2020 11TH AVE., SUITE 11 P.O. BOX 4817 HELENA, MONTANA 59604			
JOB/ACAD NUMBER:	85-00058-10	DATE	11/11/01
DRAWN BY:	B. LLOYD	DATE	11/11/01
APPROVED BY:	B. DAMSCHEN	DATE	11/11/01
CHECKED BY:	B. SIEGMUND	DATE	11/11/01
DATE:	AUGUST, 1996	DATE	11/11/01
SHEET NO.		1 of 1	



ENTRANCO

Transportation
•
Construction
Management
•
Development
•
Surveying
•
Environmental
Resources
•
Ports/Airports
•
Planning
•
Water/
Wastewater

February 13, 2001

Pat Potts
Montana Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901

RECEIVED

FEB 20 2001

MONTANA
DEPT. OF ENVIRONMENTAL QUALITY
COMMUNITY SERVICES BUREAU

Dear Ms. Potts:

Enclosed please find the results of the Autumn, 2000 ground-water monitoring at the closed Sanitation, Inc. landfill in Lewistown, Montana. Sampling was undertaken on October 17, 2000.

Ground-Water Flow

The water levels were down in all of the installations at the facility when compared to the previously-obtained readings. Piezometer SIP-2 showed the greatest decrease in static water level, dropping 2.37 feet. The other wells had smaller changes, ranging from 1.26 feet lower in monitoring well SIMW-1 to 0.32 feet lower in piezometer SIP-1. The wells all recovered at rates similar to those previously observed, so it is concluded that no significant changes have occurred in the wells or the saturated zone.

The hydraulic gradient (I) near SIMW-1 and -2 can be measured from the enclosed map to be about 0.033. The gradient near SIMW-3 and SIP-1 is approximately 0.044. Using the previously-accepted estimated porosity (n_e) of 0.35, the seepage velocity (V_s) and discharge (Q) can be calculated for the area around each of the wells. The hydraulic conductivity (K) for the area around SIMW-1 and -2 was measured at 2.6×10^{-2} cm/sec (75 ft/day). Using

$$V_s = KI/n_e$$

the seepage velocity for the area around SIMW-1 can be calculated as 2.45×10^{-3} cm/day (6.95 ft/day). The hydraulic conductivity around SIMW-3 was measured at 3.2×10^{-3} cm/sec (9.2 ft/day), with a resulting seepage velocity of 4.02×10^{-4} cm/sec (1.14 ft/day).

Ground-Water Quality

The water level was quite low in monitoring well SIMW-1, however sufficient water was collected for one volatile organic chemical (VOC) vial and all of the inorganic analytes containers. VOCs were detected in all three wells, but all

Fergus Co
Sanitation Inc. #291
closed
grd wtr mon (ANALY)
X

PO Box 4817
2030 11th Avenue
Suite 11
Helena, Montana
59604
Telephone 406 449 8627
Fax 406 449 8631

**ENTRANCO**

Transportation
•
Construction
Management
•
Development
•
Surveying
•
Environmental
Resources
•
Ports/Airports
•
Planning
•
Water/
Wastewater

reported values fell below the practical quantitation limit. Intra-well prediction analysis revealed only two statistical anomalies, both of which originated in the sample collected from well SIMW-1. The anomalies involved chloride and sulfate at values of 30 and 98 milligrams per liter (mg/l), respectively. Empirically, the reported values do not appear to fall outside of the range of reasonable variability at this site. What is of greater importance is that the VOCs are at the same or lower levels than previously measured. Trichlorofluoromethane no longer occurs in the ground water in monitoring wells SIMW-2 and -3, and 1,1,1-trichloroethane has ceased appearing in monitoring well SIMW-3.

Nitrate values in all samples failed trigger statistical exceedences and fell below the human health standard of 10 mg/l.

This facility is currently undergoing changes in the sampling regime, and additional work has been proposed at the facility. That work plan is currently under review by your department and we shall proceed with future sampling based upon the outcome of that review and/or further discussions. If you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

ENTRANCO, INC.

Bruce L. Siegmund
Senior Hydrogeologist

CC: William Spoja
enclosures

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-1

Parameter: Chloride, dissolved

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 26

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	26
	6/3/97	25
	11/4/97	24
	6/15/99	23
	6/15/99	24
	10/6/99	25
	6/27/00	22
	6/27/00	23

Date	Samples	Mean	Impacted
10/17/00	1	30	TRUE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-2

Parameter: Chloride, dissolved

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 63

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	55
	6/10/96	47
	10/22/96	62
	6/3/97	63
	11/4/97	58
	6/16/98	56
	6/16/98	59
	10/6/98	56

Date	Samples	Mean	Impacted
10/17/00	2	61.5	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-3

Parameter: Chloride, dissolved

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 34

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	34
	6/10/96	30
	10/22/96	34
	6/3/97	27
	11/4/97	30
	11/4/97	30
	6/16/98	23
	10/6/98	25

Date	Samples	Mean	Impacted
10/17/00	1	32	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-1

Parameter: Sulfate, dissolved

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 95

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	95
	6/3/97	92
	11/4/97	81
	6/15/99	77
	6/15/99	76
	10/6/99	79
	6/27/00	70
	6/27/00	74

Date	Samples	Mean	Impacted
10/17/00	1	98	TRUE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Sulfate, dissolved

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 224

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	224
	6/10/96	195
	10/22/96	214
	6/3/97	202
	11/4/97	211
	6/16/98	201
	6/16/98	202
	10/6/98	203

Date	Samples	Mean	Impacted
10/17/00	2	200	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Sulfate, dissolved

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 140

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	140
	6/10/96	139
	10/22/96	133
	6/3/97	134
	11/4/97	131
	11/4/97	131
	6/16/98	129
	10/6/98	128

Date	Samples	Mean	Impacted
10/17/00	1	139	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-1
Parameter: Specific Conductivity

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 958

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	958
	6/3/97	786
	11/4/97	751
	6/15/99	686
	6/15/99	703
	10/6/99	759
	6/27/00	755
	6/27/00	749

Date	Samples	Mean	Impacted
10/17/00	1	756	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Specific Conductivity

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 1480

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	1480
	6/10/96	1180
	10/22/96	1180
	6/3/97	1040
	11/4/97	1110
	6/16/98	1150
	6/16/98	1150
	10/6/98	1140

Date	Samples	Mean	Impacted
10/17/00	2	1125	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-3

Parameter: Specific Conductivity

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 893

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	893
	6/10/96	750
	10/22/96	706
	6/3/97	683
	11/4/97	767
	11/4/97	767
	6/16/98	739
	10/6/98	731

Date	Samples	Mean	Impacted
10/17/00	1	808	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-1

Parameter: Nitrate,Nitrite

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 5.56

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	4.49
	6/10/96	4.24
	6/3/97	5.56
	11/4/97	3.74
	10/6/98	5.52
	6/15/99	4.04
	6/15/99	4.04
	10/6/99	4.06

Date	Samples	Mean	Impacted
10/17/00	1	2.82	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-2

Parameter: Nitrate,Nitrite

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 4.18

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	3.78
	6/10/96	4.18
	10/22/96	2.6
	6/3/97	2.11
	11/4/97	3.95
	6/16/98	2.32
	6/16/98	2.37
	10/6/98	3.97

Date	Samples	Mean	Impacted
10/17/00	2	1.915	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Nitrate,Nitrite

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 935

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	8.96
	6/10/96	9.25
	10/22/96	9.09
	6/3/97	9.08
	11/4/97	935
	11/4/97	9.2
	6/16/98	1.22
	10/6/98	11

Date	Samples	Mean	Impacted
10/17/00	1	9.76	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-1

Parameter: Selenium, dissolved

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 0.019

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	0.017
	6/10/96	0.016
	6/3/97	0.014
	11/4/97	0.019
	6/15/99	0.018
	6/15/99	0.018 J
	10/6/99	0.017
	6/27/00	0.016

Date	Samples	Mean	Impacted
10/17/00	1	0.005	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Selenium, dissolved

Total Percent Non-Detects = 12.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 0.014

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	0.006
	6/10/96	0.008
	10/22/96	ND<0.005
	6/3/97	0.014
	11/4/97	0.008
	6/16/98	0.005
	10/6/98	0.006
	10/6/98	0.005

Date	Samples	Mean	Impacted
10/17/00	2	0.005	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Selenium, dissolved

Total Percent Non-Detects = 12.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 1

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	0.021
	6/10/96	0.022
	10/22/96	0.019
	6/3/97	ND<1
	11/4/97	0.023
	11/4/97	0.023
	6/16/98	0.019
	10/6/98	0.017

Date	Samples	Mean	Impacted
10/17/00	1	0.024	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-1
Parameter: Zinc, dissolved

Total Percent Non-Detects = 37.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 0.04

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	ND<0.01
	6/10/96	0.02
	6/3/97	0.03
	11/4/97	0.02
	6/15/99	0.02
	6/15/99	ND<0.01
	10/6/99	0.04
	6/27/00	ND<0.01

Date	Samples	Mean	Impacted
10/17/00	1	0.01	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-2

Parameter: Zinc, dissolved

Total Percent Non-Detects = 37.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 0.06

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	ND<0.01
	6/10/96	ND<0.01
	10/22/96	0.03
	6/3/97	0.06
	11/4/97	ND<0.01
	6/16/98	0.02
	6/16/98	0.02
	10/6/98	0.02

Date	Samples	Mean	Impacted
10/17/00	2	0.005	FALSE

Non-Parametric Prediction Interval

Intra-Well Comparison for SIMW-3

Parameter: Zinc, dissolved

Total Percent Non-Detects = 62.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 0.03

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	ND<0.01
	6/10/96	ND<0.01
	10/22/96	ND<0.01
	6/3/97	0.03
	11/4/97	ND<0.01
	11/4/97	0.01
	6/16/98	ND<0.01
	10/6/98	0.01

Date	Samples	Mean	Impacted
10/17/00	1	0.01	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-1
Parameter: Dichlorodifluoromethane

Total Percent Non-Detects = 0%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 0.68

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	0.65 j
	6/10/96	0.58
	6/3/97	0.53 j
	11/4/97	0.68 j
	10/6/98	0.54
	6/15/99	0.53 J
	6/15/99	0.51
	10/6/99	0.54

Date	Samples	Mean	Impacted
10/17/00	1	0.43	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: Dichlorodifluoromethane

Total Percent Non-Detects = 62.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 1

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	ND<1 j
	6/10/96	0.18 j
	10/22/96	0.23 j
	6/3/97	ND<0.001
	6/3/97	ND<1
	11/4/97	0.26 j
	6/16/98	ND<1
	6/16/98	ND<1

Date	Samples	Mean	Impacted
10/17/00	2	0.27	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-3
Parameter: Dichlorodifluoromethane

Total Percent Non-Detects = 62.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 1.2

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	0.2 j
	6/10/96	ND<1
	10/22/96	ND<1
	6/3/97	ND<1
	11/4/97	ND<1
	11/4/97	ND<1
	6/16/98	1.2
	10/6/98	0.45

Date	Samples	Mean	Impacted
10/17/00	1	0.3	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-1
Parameter: 1,1,1-Trichloroethane

Total Percent Non-Detects = 12.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 1

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	0.67 j
	6/10/96	0.34
	6/3/97	0.77 j
	11/4/97	0.4 j
	10/6/98	0.42
	6/15/99	0.43 .
	6/15/99	0.42
	10/6/99	ND<1

Date	Samples	Mean	Impacted
10/17/00	1	0.033	FALSE

Non-Parametric Prediction Interval
Intra-Well Comparison for SIMW-2
Parameter: 1,1,1-Trichloroethane

Total Percent Non-Detects = 75%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 1

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	ND<1 j
	6/10/96	0.18 j
	10/22/96	ND<1
	6/3/97	ND<1
	6/3/97	ND<1
	11/4/97	0.42 j
	6/16/98	ND<1
	6/16/98	ND<1

Date	Samples	Mean	Impacted
10/17/00	2	0.425	FALSE

Non-Parametric Prediction Interval **Intra-Well Comparison for SIMW-1** **Parameter: Trichlorofluoromethane**

Total Percent Non-Detects = 12.5%

Future Samples (k) = 1

Recent Dates = 1

Baseline Samples (n) = 8

Maximum Baseline Concentration = 1

Confidence Level = 88.9%

False Positive Rate = 11.1%

Baseline Samples	Date	Result
	8/16/95	0.49
	6/10/96	0.4
	6/3/97	0.47 j
	11/4/97	0.33 j
	10/6/98	0.37
	6/15/99	0.39
	6/15/99	0.4
	10/6/99	ND<1

Date	Samples	Mean	Impacted
10/17/00	1	0.28	FALSE

EPA METHOD 8260B

Client: Sanitation Inc.
Sample ID: SIMV-1
Project Info:
Lab ID: 001-00-59116
Matrix: WATER; pH= < 2

Date Reported: 10/31/00
Date Sampled: 10/17/00 10:00
Date Received: 10/19/00
Date Analyzed: 10/25/00 15:58

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.43)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	(0.33)(J)	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	(0.28)(J)	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
106383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

SYSTEM MONITORING COMPOUNDS	Runtime Quality Assurance Report			ACCEPTANCE RANGE
	CONCENTRATION(µg/L)		PERCENT RECOVERY	
	ADDED	MEASURED		
Dibromofluoromethane	10	9.50	95	74-120
1,2-Dichloroethane d4	10	10.6	106	74-120
Toluene d8	10	10.4	104	80-120
p-Bromofluorobenzene	10	11	110	80-120

REPORT COMMENTS: None

Analyst: S Reviewing Supervisor: my

/chem/5971A.Iva102500 b/ocd250801008.d

EPA METHOD 8260B

Client: **Sanitation Inc.**
 Sample ID: **SIMW-2**
 Project Info:
 Lab ID: **002-00-59116**
 Matrix: **WATER; pH= < 2**

Date Reported: **10/31/00**
 Date Sampled: **10/17/00 11:30**
 Date Received: **10/19/00**
 Date Analyzed: **10/25/00 17:50**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION ($\mu\text{g/L}$)	LIMIT OF QUANTITATION($\mu\text{g/L}$)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.27)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	(0.41)(J)	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

Runtime Quality Assurance Report				
SYSTEM MONITORING COMPOUNDS	CONCENTRATION($\mu\text{g/L}$)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	9.99	100	74-120
1,2-Dichloroethane d4	10	11	110	74-120
Toluene d8	10	10.4	104	80-120
p-Bromofluorobenzene	10	11.4	114	80-120

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A.Iva/102500.b/ct251101011.d

EPA METHOD 8260B

Client: Sanitation Inc.
Sample ID: SIMW-2A
Project Info:
Lab ID: 003-00-59116
Matrix: WATER; pH= < 2

Date Reported: 10/31/00
Date Sampled: 10/17/00 11:30
Date Received: 10/19/00
Date Analyzed: 10/25/00 18:24

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		(µg/L)	QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.27)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	(0.44)(J)	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	9.70	97	74-120
1,2-Dichloroethane d4	10	10.9	109	74-120
Toluene d8	10	10.5	105	80-120
p-Bromofluorobenzene	10	11	110	80-120

REPORT COMMENTS: None

Analyst: Reviewing Supervisor: 

I:\chem\5971A\1\va102500.b\oct251201012.d

EPA METHOD 8260B

Client: Sanitation Inc.
Sample ID: SIMW-3
Project Info:
Lab ID: 004-00-59116
Matrix: WATER; pH= < 2

Date Reported: 10/31/00
Date Sampled: 10/17/00 12:15
Date Received: 10/19/00
Date Analyzed: 10/25/00 18:59

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	(0.30)(J)	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

J= Estimated value. Present, but less than the limit of quantitation.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT	ACCEPTANCE RANGE
	ADDED	MEASURED	RECOVERY	
Dibromofluoromethane	10	10	100	74-120
1,2-Dichloroethane d4	10	10.8	108	74-120
Toluene d8	10	10.4	104	80-120
p-Bromofluorobenzene	10	11.2	112	80-120

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A.I\\va102500.b\\oct251301013.d

EPA METHOD 8260B

Client: **Sanitation Inc.**
Sample ID: **TRIP BLANK**
Project Info:
Lab ID: **005-00-59116**
Matrix: **WATER; pH= < 2**

Date Reported: **10/31/00**
Date Sampled:
Date Received: **10/19/00**
Date Analyzed: **10/25/00 14:50**

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION	LIMIT OF
		($\mu\text{g/L}$)	QUANTITATION($\mu\text{g/L}$)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
108-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m-p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION($\mu\text{g/L}$)		PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	MEASURED		
Dibromofluoromethane	10	9.75	98	74-120
1,2-Dichloroethane d4	10	10.8	108	74-120
Toluene d8	10	10.6	106	80-120
p-Bromofluorobenzene	10	11.2	112	80-120

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

/chem/5971A.I\\vs102500.b\\oct250601006.d

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: METHOD BLANK

Sample ID: Quality Assurance Method Blank
 Matrix: WATER
 Extract Method: EPA 5030

Date Reported: 10/31/00
 Date Analyzed: 10/25/00 11:16

C.A.S. #	TARGET COMPOUNDS	CONCENTRATION (µg/L)	LIMIT OF QUANTITATION(µg/L)
67-64-1	Acetone	ND	20
107-13-1	Acrylonitrile	ND	20
71-43-2	Benzene	ND	1.0
74-97-5	Bromochloromethane	ND	1.0
75-27-4	Bromodichloromethane	ND	1.0
75-25-2	Bromoform	ND	1.0
74-83-9	Bromomethane	ND	1.0
75-15-0	Carbon disulfide	ND	1.0
56-23-5	Carbon tetrachloride	ND	1.0
106-90-7	Chlorobenzene	ND	1.0
124-48-1	Chlorodibromomethane	ND	1.0
75-00-3	Chloroethane	ND	1.0
67-66-3	Chloroform	ND	1.0
74-87-3	Chloromethane	ND	1.0
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0
106-93-4	1,2-Dibromoethane	ND	1.0
74-95-3	Dibromomethane	ND	1.0
95-50-1	1,2-Dichlorobenzene	ND	1.0
106-46-7	1,4-Dichlorobenzene	ND	1.0
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.0
75-71-8	Dichlorodifluoromethane	ND	1.0
75-34-3	1,1-Dichloroethane	ND	1.0
107-06-2	1,2-Dichloroethane	ND	1.0
75-35-4	1,1-Dichloroethene	ND	1.0
156-59-2	cis-1,2-Dichloroethene	ND	1.0
156-60-5	trans-1,2-Dichloroethene	ND	1.0
78-87-5	1,2-Dichloropropane	ND	1.0
10061-01-5	cis-1,3-Dichloropropene	ND	1.0
10061-02-6	trans-1,3-Dichloropropene	ND	1.0
100-41-4	Ethylbenzene	ND	1.0
591-78-6	2-Hexanone	ND	20
74-88-4	Iodomethane	ND	1.0
78-93-3	Methyl ethyl ketone	ND	20
108-10-1	Methyl isobutyl ketone	ND	20
75-09-2	Methylene chloride	ND	1.0
100-42-5	Styrene	ND	1.0
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0
127-18-4	Tetrachloroethene	ND	1.0
108-88-3	Toluene	ND	1.0
71-55-6	1,1,1-Trichloroethane	ND	1.0
79-00-5	1,1,2-Trichloroethane	ND	1.0
79-01-6	Trichloroethene	ND	1.0
75-69-4	Trichlorofluoromethane	ND	1.0
96-18-4	1,2,3-Trichloropropane	ND	1.0
108-05-4	Vinyl acetate	ND	1.0
75-01-4	Vinyl chloride	ND	1.0
108383/106423	m+p-Xylenes	ND	1.0
95-47-6	o-Xylene	ND	1.0

ND= Indicates compound was analyzed for but not detected.

SYSTEM MONITORING COMPOUNDS	Runtime Quality Assurance Report			ACCEPTANCE RANGE
	CONCENTRATION(µg/L)	PERCENT RECOVERY		
Dibromofluoromethane	ADDED 10	MEASURED 9.87	99	74-120
1,2-Dichloroethane d4	10	10.4	104	74-120
Toluene d8	10	10.4	104	80-120
p-Bromofluorobenzene	10	11.1	111	80-120

REPORT COMMENTS: None

Analyst:  Reviewing Supervisor: 

/chem/5971A.Wa102500.bloc250401004.d

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: REFERENCE STANDARD BLANK MATRIX SPIKE

Sample ID: Quality Assurance Blank Matrix Spike
 Matrix: WATER
 Extract Method EPA 5030

Date Reported: 10/31/00
 Date Analyzed: 10/23/00 11:48

SPIKE COMPOUNDS	CONCENTRATION(µg/L)		PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	MEASURED		
Acetone	50	51	102	60-140
Acrylonitrile	50	53.6	107	60-140
Benzene	5.00	4.77	95	60-140
Bromochloromethane	5.00	4.70	94	60-140
Bromodichloromethane	5.00	4.62	92	60-140
Bromoform	5.00	4.52	90	60-140
Bromomethane	5.00	4.66	93	60-140
Carbon disulfide	5.00	4.78	96	60-140
Carbon tetrachloride	5.00	4.71	94	60-140
Chlorobenzene	5.00	4.57	91	60-140
Chlorodibromomethane	5.00	4.47	89	60-140
Chloroethane	5.00	4.64	93	60-140
Chloroform	5.00	4.62	92	60-140
Chloromethane	5.00	4.91	98	60-140
1,2-Dibromo-3-chloropropane	5.00	4.73	95	60-140
1,2-Dibromoethane	5.00	4.77	95	60-140
Dibromomethane	5.00	4.79	96	60-140
1,2-Dichlorobenzene	5.00	4.66	93	60-140
1,4-Dichlorobenzene	5.00	4.66	93	60-140
trans-1,4-dichloro-2-butene	5.00	6.31	126	60-140
Dichlorodifluoromethane	5.00	5.09	102	60-140
1,1-Dichloroethane	5.00	4.67	93	60-140
1,2-Dichloroethane	5.00	4.43	89	60-140
1,1-Dichloroethene	5.00	4.83	97	60-140
cis-1,2-Dichloroethene	5.00	4.70	94	60-140
trans-1,2-Dichloroethene	5.00	4.89	98	60-140
1,2-Dichloropropane	5.00	4.44	89	60-140
cis-1,3-Dichloropropene	5.00	5.16	103	60-140
trans-1,3-Dichloropropene	5.00	4.55	91	60-140
Ethylbenzene	5.00	4.71	94	60-140
2-Hexanone	50	52.5	105	60-140
Iodomethane	5.00	5.53	111	60-140
Methyl ethyl ketone	50	44.2	88	60-140
Methyl isobutyl ketone	50	53.9	108	60-140
Methylene chloride	5.00	4.82	96	60-140
Styrene	5.00	4.40	88	60-140
1,1,1,2-Tetrachloroethane	5.00	4.45	89	60-140
1,1,2,2-Tetrachloroethane	5.00	4.54	91	60-140
Tetrachloroethene	5.00	4.54	91	60-140
Toluene	5.00	4.46	89	60-140
1,1,1-Trichloroethane	5.00	4.82	96	60-140
1,1,2-Trichloroethane	5.00	4.72	94	60-140
Trichloroethene	5.00	4.49	90	60-140
Trichlorofluoromethane	5.00	4.64	93	60-140
1,2,3-Trichloropropane	5.00	4.70	94	60-140
Vinyl acetate	5.00	6.10	122	60-140
Vinyl chloride	5.00	4.73	95	60-140
m+p-Xylenes	10	9.18	92	60-140
o-Xylene	5.00	4.69	94	60-140

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	MEASURED		
Dibromofluoromethane	10	10.1	101	74-120
1,2-Dichloroethane d4	10	10.2	102	74-120
Toluene d8	10	10.5	105	80-120
p-Bromofluorobenzene	10	11.1	111	80-120

REPORT COMMENTS: None

Analyst: 

Reviewing Supervisor: 

[/chem/5971A.I/vs102300.b/cd230401004.d](#)

QUALITY ASSURANCE REPORT FOR EPA METHOD 8260B: SAMPLE MATRIX SPIKES

 Laboratory ID: 002-00-59116ms Matrix Spike
 Matrix: WATER
 Extract Method: EPA 5030

 Date Reported: 10/31/00
 Date Analyzed: 10/30/00 16:24

SPIKE COMPOUNDS	CONCENTRATION(µg/L)			PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	SAMPLE	SPIKE		
Benzene	10	<1.00	10.2	102	60--140
Chlorobenzene	10	<1.00	10.2	102	60--140
1,1-Dichloroethene	10	<1.00	11.2	112	60--140
Toluene	10	<1.00	9.94	99	60--140
Trichloroethene	10	<1.00	10.6	106	60--140

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	MEASURED		
Dibromofluoromethane	10	10.3	103	74--120
1,2-Dichloroethane d4	10	10.1	101	74--120
Toluene d8	10	10.2	102	80--120
p-Bromofluorobenzene	10	11.5	115	80--120

 Laboratory ID: 002-00-59116msd Matrix Spike Duplicate
 Matrix: WATER

 Date Reported: 10/31/00
 Date Analyzed: 10/30/00 16:58

SPIKE COMPOUNDS	CONCENTRATION(µg/L)		PERCENT RECOVERY	ACCEPTANCE RANGE	RPD	RPD LIMIT
	ADDED	MEASURED				
Benzene	10	10.1	101	60--140	1	11
Chlorobenzene	10	9.96	100	60--140	2	13
1,1-Dichloroethene	10	11	110	60--140	2	14
Toluene	10	10	100	60--140	1	13
Trichloroethene	10	10.4	104	60--140	2	14

Runtime Quality Assurance Report

SYSTEM MONITORING COMPOUNDS	CONCENTRATION(µg/L)		PERCENT RECOVERY	ACCEPTANCE RANGE
	ADDED	MEASURED		
Dibromofluoromethane	10	9.96	100	74--120
1,2-Dichloroethane d4	10	9.98	100	74--120
Toluene d8	10	10.4	104	80--120
p-Bromofluorobenzene	10	11.2	112	80--120

REPORT COMMENTS: None

 Analyst: CO Reviewing Supervisor: my

/chem/5971A.i/va103000.b/oct301101011.d

LABORATORY ANALYSIS REPORT
Sanitation, Inc.
Box 692
Lewistown, MT 59457
Project ID:
Sample ID: SIMW-1

Laboratory ID: 00-59116-1

Sample Matrix: Water

Sample Date: 17-Oct-00 1000

Received at lab: 19-Oct-00

Reported: 03-Nov-00

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed	
				Limit	Limit			
Chloride	30	mg/l		1		EPA 300.0	21-Oct-00 0259	MKE
Sulfate	98	mg/l		1		EPA 300.0	21-Oct-00 0259	MKE
Specific Conductance @ 25 C	756	umhos/cm		1		SM 2510B	19-Oct-00 1757	QED
pH	7.6	s.u.		0.1		EPA 150.1	19-Oct-00 1757	QED
Chemical Oxygen Demand	5	mg/l		1		EPA 410.4	23-Oct-00 0942	BS
Nitrogen, Nitrate plus Nitrite	2.82	mg/l		0.05		EPA 353.2	27-Oct-00 1715	BAS
Cyanide, Total	<0.005	mg/l	U	0.005		EPA 335.3	19-Oct-00 1654	ND
Antimony, Dissolved	<0.05	mg/l	U	0.05		EPA 200.8	24-Oct-00 1925	LB/CR
Arsenic, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	24-Oct-00 1925	LB/CR
Barium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.8	24-Oct-00 1925	LB/CR
Beryllium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	24-Oct-00 1925	LB/CR
Cadmium, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	24-Oct-00 1925	LB/CR
Chromium, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	24-Oct-00 1925	LB/CR
Cobalt, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	24-Oct-00 1925	LB/CR
Copper, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	24-Oct-00 1925	LB/CR
Iron, Dissolved	<0.03	mg/l	U	0.03		EPA 200.7	26-Oct-00 1303	MKE
Lead, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	24-Oct-00 1925	LB/CR
Mercury, Dissolved	<0.001	mg/l	U	0.001		EPA 200.8	24-Oct-00 1925	LB/CR
Nickel, Dissolved	<0.01	mg/l	U	0.01		EPA 200.8	24-Oct-00 1925	LB/CR
Selenium, Dissolved	0.009	mg/l		0.005		EPA 200.8	24-Oct-00 1925	LB/CR
Silver, Dissolved	<0.005	mg/l	U	0.005		EPA 200.8	24-Oct-00 1925	LB/CR
Thallium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.8	24-Oct-00 1925	LB/CR
Vanadium, Dissolved	<0.1	mg/l	U	0.1		EPA 200.8	24-Oct-00 1925	LB/CR
Zinc, Dissolved	0.04	mg/l		0.01		EPA 200.7	26-Oct-00 1303	MKE

U=Indicates parameter was analyzed for but not detected.

LABORATORY ANALYSIS REPORT
Sanitation, Inc.
Box 692
Lewistown, MT 59457
Project ID:
Sample ID:
SIMW-2
Laboratory ID:
00-59116-2
Sample Matrix:
Water
Sample Date:
17-Oct-00 1130
Received at lab:
19-Oct-00
Reported: 03-Nov-00

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed	
				Limit	Limit			
Chloride	61 mg/l			1		EPA 300.0	21-Oct-00 0311	MKE
Sulfate	201 mg/l			1		EPA 300.0	21-Oct-00 0311	MKE
Specific Conductance @ 25 C	1130 umhos/cm			1		SM 2510B	19-Oct-00 1759	QED
pH	7.1 s.u.			0.1		EPA 150.1	19-Oct-00 1759	QED
Chemical Oxygen Demand	5 mg/l			1		EPA 410.4	23-Oct-00 0947	BS
Nitrogen, Nitrate plus Nitrite	1.93 mg/l			0.05		EPA 353.2	27-Oct-00 1717	BAS
Cyanide, Total	<0.005 mg/l	U		0.005		EPA 335.3	19-Oct-00 1659	ND
Antimony, Dissolved	<0.05 mg/l	U		0.05		EPA 200.8	24-Oct-00 1936	LB/CR
Arsenic, Dissolved	<0.005 mg/l	U		0.005		EPA 200.8	24-Oct-00 1936	LB/CR
Barium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1936	LB/CR
Beryllium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1936	LB/CR
Cadmium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1936	LB/CR
Chromium, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1936	LB/CR
Cobalt, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1936	LB/CR
Copper, Dissolved	<0.01 mg/l	U		0.01		EPA 200.7	26-Oct-00 1307	MKE
Iron, Dissolved	<0.03 mg/l	U		0.03		EPA 200.7	26-Oct-00 1307	MKE
Lead, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1936	LB/CR
Mercury, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1936	LB/CR
Nickel, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1936	LB/CR
Selenium, Dissolved	<0.005 mg/l	J		0.005		EPA 200.8	24-Oct-00 1936	LB/CR
Silver, Dissolved	<0.005 mg/l	U		0.005		EPA 200.8	24-Oct-00 1936	LB/CR
Thallium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1936	LB/CR
Vanadium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1936	LB/CR
Zinc, Dissolved	<0.01 mg/l	J		0.01		EPA 200.7	26-Oct-00 1307	MKE

U=Indicates parameter was analyzed for but not detected.

J=Present, but less than the practical quantitation limit.

LABORATORY ANALYSIS REPORT
Sanitation, Inc.
Box 692
Lewistown, MT 59457
Project ID:
Sample ID:
Laboratory ID:
Sample Matrix:
Sample Date:
Received at lab:
SIMW-2A
00-59116-3
Water
17-Oct-00 1130
19-Oct-00
dupli for SIMW-2
Reported: 03-Nov-00

	Results	Units	Qual	Reporting Limit	Regulatory Limit	Method	Analized
Chloride	62 mg/l			1		EPA 300.0	21-Oct-00 0322 MKE
Sulfate	199 mg/l			1		EPA 300.0	21-Oct-00 0322 MKE
Specific Conductance @ 25 C	1120 umhos/cm			1		SM 2510B	19-Oct-00 1801 QED
pH	7.3 s.u.			0.1		EPA 150.1	19-Oct-00 1801 QED
Chemical Oxygen Demand	5 mg/l			1		EPA 410.4	23-Oct-00 0951 BS
Nitrogen, Nitrate plus Nitrite	1.90 mg/l			0.05		EPA 353.2	27-Oct-00 1718 BAS
Cyanide, Total	<0.005 mg/l	U		0.005		EPA 335.3	19-Oct-00 1704 ND
Antimony, Dissolved	<0.05 mg/l	U		0.05		EPA 200.8	24-Oct-00 1941 LB/CR
Arsenic, Dissolved	<0.005 mg/l	U		0.005		EPA 200.8	24-Oct-00 1941 LB/CR
Barium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1941 LB/CR
Beryllium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1941 LB/CR
Cadmium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1941 LB/CR
Chromium, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1941 LB/CR
Cobalt, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1941 LB/CR
Copper, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1941 LB/CR
Iron, Dissolved	<0.03 mg/l	U		0.03		EPA 200.7	26-Oct-00 1312 MKE
Lead, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1941 LB/CR
Mercury, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1941 LB/CR
Nickel, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1941 LB/CR
Selenium, Dissolved	<0.005 mg/l	J		0.005		EPA 200.8	24-Oct-00 1941 LB/CR
Silver, Dissolved	<0.005 mg/l	U		0.005		EPA 200.8	24-Oct-00 1941 LB/CR
Thallium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1941 LB/CR
Vanadium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1941 LB/CR
Zinc, Dissolved	<0.01 mg/l	J		0.01		EPA 200.7	26-Oct-00 1312 MKE

U=Indicates parameter was analyzed for but not detected.

J=Present, but less than the practical quantitation limit.

LABORATORY ANALYSIS REPORT
Sanitation, Inc.
Project ID:
Box 692
Sample ID:
SIMW-3
Lewistown, MT 59457
Laboratory ID:
00-59116-4
Sample Matrix:
Water
Sample Date:
17-Oct-00 1215
Received at lab:
19-Oct-00
Reported: 03-Nov-00

	Results	Units	Qual	Reporting	Regulatory	Method	Analyzed
				Limit	Limit		
Chloride	32 mg/l			1		EPA 300.0	21-Oct-00 0334 MKE
Sulfate	139 mg/l			1		EPA 300.0	21-Oct-00 0334 MKE
Specific Conductance @ 25 C	808 umhos/cm			1		SM 2510B	19-Oct-00 1803 QED
pH	7.9 s.u.			0.1		EPA 150.1	19-Oct-00 1803 QED
Chemical Oxygen Demand	4 mg/l			1		EPA 410.4	23-Oct-00 0955 BS
Nitrogen, Nitrate plus Nitrite	9.76 mg/l			0.05		EPA 353.2	27-Oct-00 1811 BAS
Cyanide, Total	<0.005 mg/l	U		0.005		EPA 335.3	19-Oct-00 1709 ND
Antimony, Dissolved	<0.05 mg/l	U		0.05		EPA 200.8	24-Oct-00 1946 LB/CR
Arsenic, Dissolved	<0.005 mg/l	U		0.005		EPA 200.8	24-Oct-00 1946 LB/CR
Barium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1946 LB/CR
Beryllium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1946 LB/CR
Cadmium, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1946 LB/CR
Chromium, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1946 LB/CR
Cobalt, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1946 LB/CR
Copper, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1946 LB/CR
Iron, Dissolved	<0.03 mg/l	U		0.03		EPA 200.7	26-Oct-00 1316 MKE
Lead, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1946 LB/CR
Mercury, Dissolved	<0.001 mg/l	U		0.001		EPA 200.8	24-Oct-00 1946 LB/CR
Nickel, Dissolved	<0.01 mg/l	U		0.01		EPA 200.8	24-Oct-00 1946 LB/CR
Selenium, Dissolved	0.024 mg/l			0.005		EPA 200.8	24-Oct-00 1946 LB/CR
Silver, Dissolved	<0.005 mg/l	U		0.005		EPA 200.8	24-Oct-00 1946 LB/CR
Thallium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1946 LB/CR
Vanadium, Dissolved	<0.1 mg/l	U		0.1		EPA 200.8	24-Oct-00 1946 LB/CR
Zinc, Dissolved	<0.01 mg/l	J		0.01		EPA 200.7	26-Oct-00 1316 MKE

U=Indicates parameter was analyzed for but not detected.

J=Present, but less than the practical quantitation limit.

Lab Nos. 00-59116-1-4

QUALITY ASSURANCE DATA PACKAGE

This report is a summary of the results of the quality assurance tests performed with the sample analyses. They are performed to determine if the methodology is in control and to monitor the laboratory's ability to produce accurate and precise results. The date the quality assurance sample was analyzed is consistent with Energy Laboratories' Quality Assurance Plan.

Constituents	Duplicate Analysis		Spiked	Blank Analysis mg/l (ppm)	Calibration	True Value,
	--- mg/l (ppm) ---		Analysis		Sample	Acceptable
	Original	Duplicate	Recovery %		Analysis mg/l (ppm)	+/- 10% mg/l (ppm)
Chloride	17	16	95	<1	26	25
Sulfate	1520	1520	100	<1	104	100
Specific Conductance, μ mhos/cm	2510	2490	NA	<1	NA	NA
pH, s.u.	8.6	8.5	NA	NA	NA	NA
Chemical Oxygen Demand	5	5	97	<1	98	89
Nitrogen, Nitrate plus Nitrite	0.05	0.06	111	<0.05	2.39	2.3
Cyanide, Total	0.052	0.054	103	<0.005	0.178	0.190
Antimony, Dissolved	<0.05	<0.05	105	<0.05	0.049	0.05
Arsenic, Dissolved	<0.005	<0.005	99	<0.005	0.053	0.05
Barium, Dissolved	<0.1	<0.1	100	<0.1	0.048	0.05
Beryllium, Dissolved	<0.001	<0.001	112	<0.001	0.052	0.05
Cadmium, Dissolved	<0.001	<0.001	107	<0.001	0.051	0.05
Chromium, Dissolved	<0.01	<0.01	102	<0.01	0.050	0.05
Cobalt, Dissolved	<0.01	<0.01	104	<0.01	0.050	0.05
Copper, Dissolved	<0.01	<0.01	99	<0.01	0.050	0.05
Iron, Dissolved	<0.03	<0.03	95	<0.03	4.92	5
Lead, Dissolved	<0.01	<0.01	107	<0.01	0.050	0.05
Mercury, Dissolved	<0.001	<0.001	111	<0.001	0.005	0.005
Nickel, Dissolved	<0.01	<0.01	100	<0.01	0.050	0.05
Selenium, Dissolved	<0.005	<0.005	107	<0.005	0.049	0.05
Silver, Dissolved	<0.005	<0.005	86	<0.005	0.020	0.02
Thallium, Dissolved	<0.1	<0.1	109	<0.1	0.051	0.05
Vanadium, Dissolved	<0.1	<0.1	105	<0.1	0.050	0.05
Zinc, Dissolved	0.04	0.04	97	<0.01	0.98	1



Lab Nos.: 001-00-59116 - 005-00-59119

Date: 19-Oct-00

Received by: Justin McMillan

Logged In by: Justin McMillan

SAMPLE CONDITION QA/QC REPORT

This report provides information about the condition of the sample(s)
and associated sample custody information on receipt at the laboratory

Chain of Custody

Completed & Signed	<u>Yes</u>	Comments: _____
Chain of Custody Seal	<u>N/A</u>	Comments: _____
Intact	<u>N/A</u>	Comments: _____
Signature Match Chain of Custody vs. Seal	<u>N/A</u>	Comments: _____
Temperature Received	<u>5 C</u>	Comments: _____
Samples Received Within Holding Time	<u>Yes</u>	Comments: _____
Samples Received in Prober Containers	<u>Yes</u>	Comments: _____
Samples Received Properly Preserved(1)	<u>Yes</u>	Comments: _____

(1) Acid preservation of samples for volatile organics is not evaluated on this form.

Any preservation problems encountered for these samples are noted on the analytical parameter report pages.

Record of client contact:

Who: _____ By: _____ Date/Time: _____

Method of Shipping: Hand Delivered

Additional Comments: _____



Received Date: _____	Cust. No.: _____
Login Date: _____	Custody Seal: Yes/No _____
Shipped by: _____	Intact: Yes/No _____
Shipping Bill #: _____	Signature Match?: Yes/No _____
Code Six: _____	If no - Reason: _____

For Lab Use Only

BILLINGS, MT P.O. Box 30916 (59107) 1120 South 27th (59101)			CASPER, WY P.O. Box 3258 (82602) 2393 Salt Creek Highway (82601)			GILLETTE, WY 1105 West First Street (82716)			HELENA, MT P.O. Box 5688 (59604) 2704 Billings Ave. (59601)			RAPID CITY, SD P.O. Box 2470 (57709) 610 Farmwood (57701)		
watts 800-735-4489	voice 406-252-6325	Fax 406-252-6069	watts 888-235-0515	voice 307-235-0515	Fax 307-234-1639	watts 307-686-7175	voice 307-686-7125	Fax 307-682-4625		Voice/Fax 406-442-0711		watts 888-672-1225	voice 605-342-1225	Fax 605-342-1397
P.O. #	Project Name / Address					number of containers Sample Type: A W S V U O Air Water Soils/Solids Vegetation Urine Other		Analysis Requested <i>(Diagonal Lines)</i> Comments, Special Instructions, etc.						
Contact Name & Phone	Sampler's Signature													
Lab No. For Lab Use Only	DATE	TIME	Invoice to:											
			Report to:											
			SAMPLE I.D.											
	10/19/00	1000	SIMW-1			Sw X								insufficient water for 2 use vials. ANTICIPATE LOW CONC.
		1130	Simw. 2			Lw X								
		1130	SIMW-2A			Lw X								
		1215	Trip Blank SIMW-3			Lw X								
	10/19/00		TRIP BLANK			Lw								
1. Relinquished (signature)	Date	Time	Received by: (signature)			2. Relinquished (signature)		Date	Time	Received for Laboratory by: (signature)				
[Signature]	10/19/00	14:55						10/19/00	14:55	[Signature]				

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11

(406)449-8627

P.O. BOX 4817

HELENA, MONTANA 59604

Ground-Water Monitoring Field Report

Project: SANITATION, INCWell: Simw-1Personnel: B. SiegmundDate: 10/17/00Time: 10:00

Conditions: _____

Static Water Level: 47.12

Total Depth: _____

Purge Method: BALTERVolume Purged: ~ 1 l

	Temperature	Conductivity	pH
1	_____	<u>1940</u>	<u>7.07</u>
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

~ 1 l
Purged
DR1

Pumping Level: _____

Recovery:

h1 _____

h2 _____

time _____

Sample preservatives:

1000 ml, 6, no preservative N/A250 ml w/ H₂SO₄ X250 ml w/ HNO₃ X250 ml w/ NaOH X500 ml, raw X40 ml X2 w/ HCl Xfiltered

Comments:

WELL IS VERY LOW ON WATER - RECOVERY
VERY SLOW. SAMPLED OVER THE COURSE
OF 2 HRS TO ALLOW FOR RECOVERY.
ONLY 1 VOC SHOULD BE SUFFICIENT WATER
FOR REMAINING ANALYSES.

SIP-2 = 53.88'

SIP-1 = 38.51'

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11

(406)449-8627

P.O. BOX 4817

HELENA, MONTANA 59604

Ground-Water Monitoring Field Report

Project: SANITATION, INC.Well: SIMW-2
2APersonnel: B. STEAMERDate: 10/17/02Time: 1130

Conditions: _____

Static Water Level: 37.65Total Depth: 42.5Purge Method: BAILOUTVolume Purged: ~ 1 GALBAILED
DRY

	Temperature	Conductivity	pH
1	_____	<u>2220</u>	<u>6.91</u>
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

@ SAMPLE

Pumping Level: _____

Recovery:

h1 0h2 0.61time 10 SEC@ 40'

Sample preservatives:

1000 ml, 6, no preservative n/a250 ml w/ H₂SO₄ ✓250 ml w/ HNO₃ ✓250 ml w/ NaOH ✓500 ml, raw ✓40 ml, x2, w/ HCl ✓filtered

Comments:

**ENTRANCO**

WWW.ENTRANCO.COM

2030 11TH AVE., SUITE 11 (406)449-8627
P.O. BOX 4817
HELENA, MONTANA 59604

Ground-Water Monitoring Field Report

Project: SANITATION INCWell: Simu-3Personnel: B. SiegmundDate: 10/17/00Time: 12:15

Conditions: _____

Static Water Level: 34.43

Total Depth: _____

Purge Method: BAUERVolume Purged: N 1.5 GAL PURGED DRY

	Temperature	Conductivity	pH	
1	_____	<u>903</u>	<u>7.14</u>	<u>@ Sample</u>
2	_____	_____	_____	
3	_____	_____	_____	
4	_____	_____	_____	

Pumping Level: _____

Recovery:

h1 φh2 0.01time 10 sec @ 35'

Sample preservatives:

1000 ml, 6, no preservative _____

250 ml w/ H₂SO₄ X250 ml w/ HNO₃ _____

250 ml w/ NaOH _____

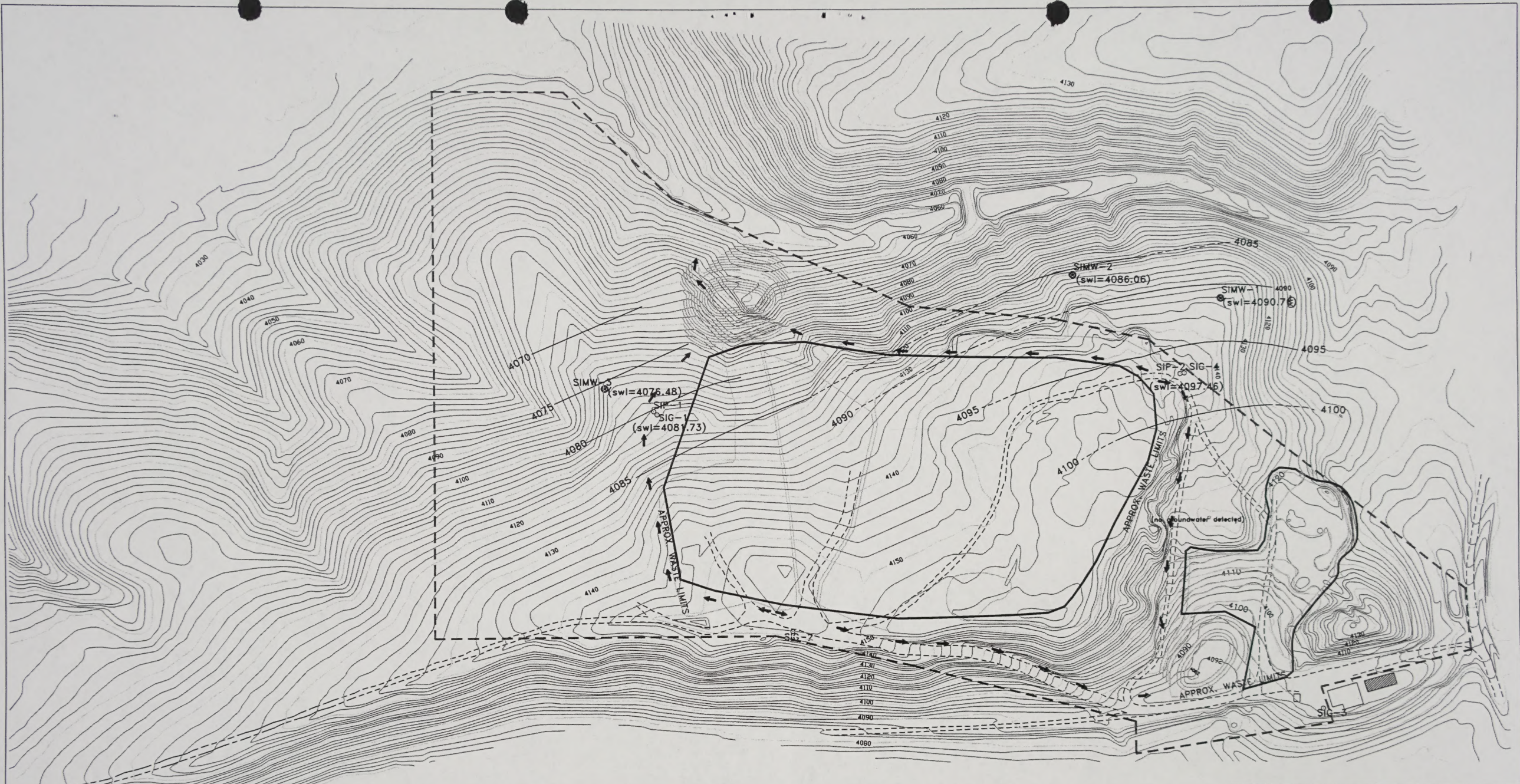
500 ml, raw _____

40 ml, x2, w/ HCl _____

filtered

Comments:





LEGEND

- SI-1 test boring (plugged)
- △ SIG-1 landfill gas monitoring well
- SIP-1 piezometer, showing static water level elevation (swl=4100)
- SIMW-1 ground-water monitoring well, showing static water level elevation (swl=4100)
- water table contour; interval two feet

topographic contour interval = 2 ft
groundwater measurements from 10/17/00



PROJECT TITLE
SANITATION INC.
Lewistown, Montana

SHEET TITLE
Site Plan

ENTRANCO
www.entrancoco.com
2030 11th Ave. Suite 11
P.O. Box 4817
Helena, Montana 59604

JOB/ACAD NUMBER: 85-00058-10	Drawn by: B. Lloyd	Checked by: B. Siegmund	DATE: AUGUST, 1996
	Approved by: B. Damschen		

SHEET NO. **1** of **1**

